Clinical Lecture
ON
LARGE HEADS IN CHILDREN.

Delivered in St. Bartholomew's Hospital, June 4th, 1880,

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GENTLEMEN,—There are two children in Mary ward who afford a good text for a lecture on big heads. Adults seldom or never consult you on account of the size of their heads, but children are very often brought for an opinion about their heads, which are thought to be too big, and to indicate water on the brain.

Much of what I have to say is taken from a paper on the "Shape of the Head, looked at from a medical point of view," which I published in the Hospital Reports for the year 1871.[1] The length of time which has since passed away gives me the advantage of sitting in judgment upon my own article, of correcting it, and of adding to it the results of a larger experience.

In the first place we must remember the rapid growth of the brain in childhood. During the first year the weight of the brain is more than doubled. "Sömmerring concluded that the brain reached its full size as early as the third year; the Wenzels and Sir W. Hamilton fixed the period about the seventh, and Tiedemann between the seventh and eighth."[2] This is not far from the truth. Hence the cranium or the brain-pan grows much more quickly than the face and the rest of the body; and hence the skull is often wrongly deemed to be unduly large, even in a perfectly healthy child.

When we are asked for an opinion about a big head, the first thing to do is to study, not its size, but its shape. Here we are helped by the cyrtometer, which will give us an exact outline of the head in any plane. Of the three chief planes of the skull—to wit, the horizontal plane and the two vertical planes (longitudinal and transverse),—the horizontal plane is certainly the least useful, and the longitudinal vertical plane the most useful. The latter plane passes through the tuber occipitale, sagittal suture, and glabella. It is the plane which anthropologists have chosen, as being the most important; so much so that Mr. Huxley deems it a disgrace in any ethnological collection to have a single skull which is not bisected thus.

Our cyrtometric tracing, then, passes from the deepest part of the nape of the neck just below the tuber occipitale, over the top of the head, to the deepest part of the bridge of the nose, a little above the canthus internus of the eyelids. The shape of a natural head, upon this plane, is that of an irregular pentagon with curved sides. Of the five sides of this pentagon, four belong wholly to the cranium, four increase in length as the cranium increases in size. The fifth side belongs partly to the face, and does not grow at the same rate as the other sides or as the cranium. This fifth side may be called the base line, inasmuch as it is a straight line joining the deepest part of the nape of the neck with the deepest part of the bridge of the nose, and corresponds roughly with the base of the skull. This base line, because it is somewhat of a constant, which does not change altogether with cranial changes, is most useful as a standard of comparison.

The greater number of big heads retain the pentagonal shape; some do not. I call the former long heads or dolichocephalæ, and the latter round heads or cyclocephalæ, for reasons which will appear hereafter.

I. *Long Heads.*—The cranium enlarges, but the base of the skull does not grow in proportion. The cranial sides of the pentagon lengthen, but very much more than the base line. The result is that the proportion between the greatest length of the cranium from before backwards and the base line is changed. I have measured a good many heads of healthy children under three years of age, and I find that the ratio between the greatest length of the cranium and the base line is as six are to five; in other words, the cranium is about one fifth longer than the base. In these measurements, the greatest antero-posterior diameter must be taken parallel to the base line, an easy thing to do in the cyrtometric tracing. But even in a well-shapen head, the length of the cranium may be greater than the above-mentioned average; yet the ratio of greatest length to base line is seldom or never more than as five are to four—that is to say, that the cranium of a healthy head is never longer than the base line by more than one-fourth of the latter. If the cranium is longer than this, I call it dolichocephalic. This is not the meaning which Retzius, who invented the word, gave to it; nevertheless, I have ventured to change the meaning for medical purposes, and for reasons given in my paper in the Hospital Reports. The increased length of cranium shows itself before or behind, or in both directions. It is observed that the child's forehead is "overbuilt with most impending brows," or that the occiput is very protuberant, or that the head projects both back and front.

Let us now inquire into the state of things within a dolichocephalic skull. In my former paper I declared my belief that "dolichocephalus is always the result of increase in the solid contents of the skull, and not in its liquid contents. In other words, dolichocephalus indicates a big brain, and not water on the brain." I have now to say that this proposition is not universally true; on the contrary, dolichocephalus is only sometimes indicative of a big brain.

1. The big brain, in most cases, is naturally big. It does not afford any signs of disease, either during life by lesion of function, or after death by lesion of structure. The person has a head and brain too great for his body; that is all we have to say of him; but that is saying much, because it is saying that he is not suffering from the incurable disease which is always supposed in such cases.

2. The big brain is sometimes unnaturally big; it is said to be hypertrophous. Its functions during life are much impaired. Yet the naked eye cannot detect any structural changes after death. Some there are who affirm that hypertrophy of the brain is due to "diffuse interstitial hyperplasia of the neuroglia;" it would seem to be more agreeable with our present knowledge neither to affirm nor to deny. For hypertrophy of the brain is an uncommon disease. Few cases are on record, and for this reason I will narrate the following instance.

L. O——, a boy two years and three-quarters old when seen for the first time. He was never able to walk; he did not cut his first tooth until he was ten months of age. When two years and a half old he became feverish, vomited, and screamed a great deal, and had fits, sometimes two a day, sometimes two a week. His mother's attention being drawn to his head, she noticed for the first time that it was large.

He was highly rickety—head, breast, and limbs all deformed. His head was much enlarged; but I have preserved no tracing of it, because at that time I did not use the cyrtometer. The fontanelle was widely open, not raised. Slight internal squint of right eye; no blindness; pupils equal. He seemed very dull, and cried fretfully. Two days afterwards he was convulsed, and died. Post-mortem appearances: Body not very thin; weight 17¾ lb. Skull—fontanelle on a level with bones, about 1½ in. square. Recent black thrombi in posterior half of superior longitudinal sinus and of lateral sinuses. No flattening of convolutions. No excess of intracranial fluid anywhere. Brain weighed 59 oz. (more than one-fifth of the whole weight of the body). To the unaided eye its structure seemed natural; the grey matter was increased as much as the white; the corpora striata were very large. The consistency of the brain was natural, it was not toughened or hardened, and its specific gravity did not seem to be increased. The other organs were natural.

3. But in by far the greater number of dolichocephalæ which I have examined the brain has not been larger than natural. Wherefore, in such cases, the brain does not fill the skull, and the space between them is occupied by serum. The effusion is both external and internal; it seems to be passive, simply filling up what would otherwise be a vacuum. Nor are there any signs of pressure either upon the skull or the brain. In these particulars this kind of hydrocephalus, or water on the brain, differs altogether from the active hydrocephalus I shall have to speak of hereafter, which is ventricular or internal, which dilates the skull by equal pressure in all directions, into a sphere; and which also compresses the brain.

[1] St. Bartholomew's Hospital Reports, vol. vii., 1871.
[2] Quain's Anatomy, sixth edit., vol. ii., p. 450.

Now most, if not all, of these children are rickety; indeed, this kind of dolichocephalus and hydrocephalus is peculiar to rickets. The earliest writers upon rickets knew this; for details upon this point I may refer you to an article of mine upon rickets in the Hospital Reports for 1868.[3] Let us see what explanations have been given of this rickety head. Van Swieten writes thus: "In rickety children the bones are softer, and the membranous spaces between the bones of the skull are wider than in healthy children; hence the whole fabric of the skull more easily yields to the distending encephalon, whence the reason also appears why an increased size of the head in rickety children is enumerated amongst the diagnostic signs of that disease. Now, if it be considered that the quantity and impetuosity of the humours towards the head are augmented from the magnitude of the arteries and jugular veins, it evidently appears why the bulk of the head may be increased on account of these three concurrent causes—the softness of the bones, the membranous state of a considerable part of the skull, and a copious afflux of blood to the part, whilst the rest of the body seems rather to decrease. And thus a disposition to a hydrocephalus arises, which sometimes accompanies the rickets, and sometimes is a consequence thereof."[4] As who should say, the softened bones yield to the pressure of the blood within. Perhaps there may be a little truth in this explanation. Shaw holds that the cranium of rickets is only relatively big, and seems to be so because the face is actually smaller than natural on account of arrested growth. "In other words, in persons whose growth has been interrupted by rickets the face will appear extraordinarily diminutive, while the cranium will retain about its natural dimensions."[5] Doubtless there is some truth in this explanation, but not the whole truth. In at least some rickety persons, if not in all, the cranium is extraordinarily big. In my former paper on the shape of the head I gave the measurements of a head which are decisive upon this point.[6] Moreover, Shaw's explanation does not touch the hydrocephalus; if the cranium be of natural size why should it contain a great excess of serum, seeing that the brain also is of natural size?[7] I will narrate a case in point. A boy three years old had never walked or talked. He had been very subject to convulsions since he was eight months old. He was very rickety, fontanelle more than an inch square, head very large. The body weighed 20½ lb., the brain 43½ oz., about its natural weight, yet it did not nearly fill the skull; there was much fluid in the arachnoid sac, the pia mater, and the ventricles. The brain seemed natural in all respects. I think we must end where we began, with the simple assertion that the skull in rickets is often enlarged so as to be greater than is necessary for the brain, and the excess of space is occupied by serum.

I will now speak of the manner in which the head is enlarged by inherited syphilis. It does so in two ways. First, the characteristic enlargement is due to extensive growth of the osteophytes described by Parrot.[8] The cranial bones, especially the frontal and occipital bones, become greatly thickened, it may be as much as two or even three centimetres. The big head, such as it is, is indicative not of a cranial cavity larger than natural, but only of a thickened skull. Wherefore the enlargement of the head from this cause is never great. Secondly, the head of syphilitic children often possesses all the characters which I have just assigned to the rickety head, and I have always deemed these children to be both syphilitic and rickety, and have even gone so far as to believe that syphilis may be looked upon as a cause of rickets. But what shall we say to Parrot's doctrine that syphilis is not only a, but the, cause of rickets, that "syphilis leads of necessity to rickets, and that rickets, thus regarded, is not a pathological entity, but simply a period, a particular state, a form of hereditary syphilis, so much so that rickets can be no longer taken to include these syphilitic lesions of the bones, but, on the contrary, it is syphilis which includes rickets, and rickets thus sinks from the position which it has hitherto held into that of a simple syphilitic affection." If Parrot mean by rickets all that I have been accustomed to include under that name, I cannot accept his doctrine, I must even stoutly deny it. However, this question does not concern us here; we are not discussing the nature of rickets, but the changes it produces in the size and shape of the skull.

II. *Round Heads.*—In this kind of big head the shape of the skull is fundamentally changed; it ceases to be a pentagon and becomes a segment of a circle. Cyclocephalus is the shape proper to ventricular hydrocephalus, a disease characterised by an active distension of the ventricles of the brain by serum, and a much more serious disease than the passive hydrocephalus I mentioned just now as being present in some rickety dolichocephals. Hydrocephalus does not produce a round head after the fontanelles are closed and the sutures well united. Acute ventricular effusion, occurring in tubercular or purulent meningitis, does not produce a round head, even when the fontanelle and sutures are not closed; the pressure, we may suppose, does not last long enough.

Another well-known effect of the active distension of the skull from within by fluid is the peculiar change in the position of the eyeballs with respect to the eyelids; a condition due to excessive obliquity and drawing-upwards of the orbital plates, and never associated with dolichocephalus.

Optic neuritis, going on to atrophy of the discs, is sometimes caused by hydrocephalus; especially when it sets in after the fontanelle has closed. When the head admits of distension, and becomes cyclocephalic, the optic neuritis is often absent.

Lastly, in extreme hydrocephalus, the head is sometimes seen to be translucent in a strong light, such as that of the sun.

[3] St. Bartholomew's Hospital Reports, vol. iv., p. 73.
[4] Comment on Aphor. (1487).
[5] Medico-Chirurgical Transactions, vol. xxvi., p. 348, 1843.
[6] St. Bartholomew's Hospital Reports, vol. vii., p. 9.
[7] Ibid., vol. iii., p. 109.
[8] Pathological Transactions, vol. xxx., p. 348.

Clinical Lecture
ON THE
RESULTS OF ANTISEPTIC OSTEOTOMY
FOR GENU VALGUM, VARUM, AND OTHER OSSEOUS DEFORMITIES OF THE LOWER LIMB.

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GENTLEMEN,—Having now operated on 557 limbs, belonging to 330 patients affected with various osseous deformities of the lower extremities, the opportunity is considered favourable for taking a retrospect of the results. Of these, 220 patients were affected with knock-knee, presenting 367 limbs for treatment. There were 64 patients who had 104 bow-legged limbs; 40 patients had 80 limbs affected with anterior or other tibial curves; and 6 patients had osseous anchylosis of joints—1 of hip and 5 of knee. Though 557 limbs were operated on, that does not indicate the number of osteotomies, as in many instances several osteotomies were performed on one limb. This happened in those cases of knock-knee which were complicated by other curves, such as anterior tibial; in such, the tibia and fibula were divided as well as the femur, making three osteotomies on one limb. In tibial curves of old standing, the tibia and fibula had to be divided at times in two places, making four osteotomies on one limb. Bow-leg, when aggravated, often required the tibia and fibula to be divided in two places and the femur in one—thus making five osteotomies on one limb, or ten on each patient. In this way there have been 835 osteotomies performed. Both limbs were operated on at once, and, with few exceptions, all the osseous incisions necessary for the correction of the deformity or deformities were proceeded with at one sitting: as many as ten osteotomies have been performed on one patient at once. The wounds leading to the bone are from three-quarters of an inch to an inch and a half; but even the smallest wound made cannot be looked upon, nor is it in any sense intended, to render the osseous incisions subcutaneous. The wounds enable the instrument to reach the bone; but as they are generally made more or

less obliquely, while the osteotome, after introduction, is turned transversely to the axis of the limb, there is an aperture on each side of the osteotome, leading from the external air directly to the interior of the bone. In rectifying anterior tibial curves wedges were removed by larger wounds than are required for simple osteotomy, the edges of the wounds being held aside by retractors, the purified air having free access to the interior of the bone during the whole operation. Not only so, but it is often the case, while rectifying the deformity, to hear the air whistling into the space between the divided osseous surfaces. They are therefore not subcutaneous osteotomies, but examples of compound fractures and incisions treated antiseptically. In one or two peculiar cases wedges were found on the opposite side from that on which the wound was made, and after being loosened, the deformity was rectified by displacement without removal of the wedge. In several other cases the curve was so great that the bones were divided in three or four places, the division being at very short distances from one another, thus causing what might be described as a compound comminuted incision and fracture.

After the osteotomy is finished the wounds are examined, and if there be a redundant supply of adipose tissue protruding above the level of the skin, it is carefully removed by a pair of scissors curved on the flat. If this be not attended to, the cellular tissue comes into direct contact with the protective plaster and granulations from above the level of the wound, which take a longer time to heal than the cellular tissue takes to vitalise. If the cellular tissue be removed, so as to form a concavity, the blood-clot fills this up, and a layer of blood-clot is thus formed between the protective plaster and the cellular tissue. When the wound is large, a few catgut stitches are introduced.

All the cases are dressed and put up in splints before removing the patient from the table. The temperature is taken night and morning, and if it be found normal and there is no discharge, no pain or discomfort, the dressings are not touched until the end of a fortnight, when they are removed, and the wounds are found healed. This, as we are aware, is what happens in most cases. The blood-clot between the lips of the wound is seen to be vitalised and covered by a delicate, almost transparent, layer of epithelium, which however quickly becomes opaque by exposure to the light. With the exception of eight cases, all these 557 limbs and 835 osteotomies healed by vitalisation of blood-clot without the production of a drop of pus. In seven of the eight cases which suppurated there was a distinct known cause for the pus production; thus in three instances a bruising and laceration of the soft parts occurred during the operations. In one case a layer of muscle became caught between the cut surfaces of the tibia and was severely rubbed during the adjustment of the bone. The fifth and sixth cases were due to irritation set up by pressure in one and by the splint in another; the seventh may be also attributed to over-pressure of the limb, which became twisted by the patient's own actions. In the eighth case there was no cause which was apparent for the pus production. In each of these cases the temperature indicated the impending mischief, as it was above normal, and put us on our guard. The amount of pus in these cases varied from a few drachms up to a number of ounces, necessitating frequent dressings. But all of them, with one exception, did well; they ultimately recovered perfectly, their convalescence not being much protracted beyond the ordinary time. The exception is the one mentioned as the seventh case—a lad who was affected with bow-leg, who, on the second night, during the nurse's temporary absence, rose from bed and fell, his splints and bandages becoming shifted and his foot twisted. This circumstance was concealed. On the morning following the occurrence the foot and leg were found twisted, the toes were cold and livid, and ultimately became gangrenous. After amputation of the limb the lad gradually recovered, and is now strong and healthy. There is no doubt but that this result was the consequence of his own act, coupled with the subsequent concealment of the fact; attention was only drawn to the mishap ten hours after, when the foot was found twisted. The true cause was only confessed long after.

Of those who have been operated on, three died *after* the operation, but none have died *from* the operation. One died from pneumonia contracted prior to the operation, one from tubercular meningitis, and one from diphtheria.

The first was a patient whose friends stipulated for her that she should be operated on when admitted, as her situation was only to be kept open for a limited period. This was acceded to. She was seventeen years of age, and when first seen by me she had the aspect of a girl in fair general health. In answer to inquiries regarding her health, she stated that she was well and was prepared and anxious for the operation. She had a slight herpetic eruption on the lips at the right angle of the mouth, which she attributed to cold. The operation was proceeded with. She took chloroform badly, and several times during the operation it had to be temporarily suspended, owing to fits of coughing. On recovering from the anæsthetic, several rusty-coloured sputa were expectorated, and on examining the lungs there was a very slight dulness with a very fine vesicular crepitation detected over the left base posteriorly. It then transpired that she had come from Ireland two days previously, and had remained on deck during the whole of a December night, that next day she had had a feeling of cold and shivering, but being desirous to have the operation performed, and also thinking that the shivering was a trifle in itself, she did not mention it in giving her history on the morning of the operation. The expectoration during the operation day continued to be streaked with blood, the colour deepening as the time advanced; the catching pneumonic cough set in towards the second morning, and the herpetic eruption at the side of the mouth spread. In short, the pneumonia developed and passed through its various stages, the left lung in its middle and lower lobes being involved, and death ensued at the end of two weeks. The wound on the right limb healed by vitalisation of blood-clot. That on the left at first closed, but, probably owing to the movement consequent on the application of poultices to the lung, it afterwards suppurated, but before death it had again almost healed.

It is evident that the operation had been performed just at the outset of what ultimately proved to be severe pneumonia. Had the operation been postponed for twenty-four hours, the symptoms would have manifested themselves, and the operation would not have been performed.

The second case was that of a lad nineteen years of age, who had been subject to periodical attacks of head symptoms since childhood; he, however, had been free from them for about six months prior to the operation. Osteotomy was performed in both limbs; the wounds healed by vitalisation of blood-clot, and the dressings were removed on the tenth day. Up till this time everything had gone well; the wounds were healed, the limbs straight, and he had suffered no pain. On the eleventh day he was somewhat duller than usual, and seemed slightly stupid. At night he was restless, confused, and turned about. On the next day he was a little better, but his pulse at times was very slow, and at others quick, the change occurring from one to the other within a few hours. His temperature remained about normal; once or twice it was subnormal. Vomiting set in early, and was persistent. His pupils were widely dilated, the eyes assuming a wakeful, brilliant appearance; occasionally he squinted. On the third day from the commencement of the symptoms he became slightly delirious, but could be made to answer questions. On the fifteenth day after the operation he died. His parents and friends stated that the symptoms which he exhibited on this occasion were quite similar to those which characterised his former attacks, and so satisfied were they of this that no amount of persuasion could induce them to grant a post-mortem examination. Though no autopsy was obtained, Dr. Foulis, the pathologist, and Dr. Clark, the lecturer on anatomy, examined the external appearances of the body. They saw that the wounds on the limbs were firmly healed, and that there was no abnormal appearance of the limbs.

It is evident that this lad died from a head affection, most likely of a tubercular nature, originating during childhood and continuing to manifest itself up to adolescent life. About the same time a patient fifteen years of age was met with who passed through almost identical attacks prior to any operation having been performed on him. He had had such attacks from early childhood, coming on at intervals of six or nine months. This lad was operated on for double knock-knee. He had no attacks during convalescence, and recovered perfectly. It is now nine months since he was operated on, and he has been in good health ever since.

The third fatal case was that of a girl aged seven years, who had a single osteotomy performed on her. She took diphtheria on the seventh day and died from the diphtheria on the twelfth day. The diphtheritic membrane stretched down the bifurcation of the trachea. Notwithstanding the

high temperature consequent on the diphtheritic pains the wound healed by vitalisation of blood-clot. There was not a drop of pus formed. A post-mortem examination was conducted by Dr. Foulis, and the only post-mortem specimen of an osteotomy was thus obtained. This specimen will again be alluded to, but meantime allow me to point out that the incision in the bone has been made exactly as it is described theoretically.

These are the only three cases of death after osteotomy, and not one of these can be traced to the operation, all of them being attributable to extraneous causes.

In order that you may fully understand the foregoing remarks and appreciate the results, it is necessary to supply the following information regarding the constitutional condition of the patients operated on. In my earlier osteotomies the strong and healthy were selected, with few exceptions. It soon became apparent, however, that if this selection were continued it would exclude many patients, and among them those whose limbs most required straightening and those who would derive most benefit from the results. It was seen that in those who were comparatively healthy the operation was followed by little or no constitutional disturbance. It then became a question whether the state of the system in those persons who were weak and reduced would have such an influence on the wounds as to induce phenomena in them which might reflect on the system and negative the performance of the operation.

The way was at first very carefully felt in this direction, step by step; and the solution arrived at, deduced from abundant data, is that an antiseptic osteotomy can be performed in the weak and enfeebled with impunity; their constitutional state does not suffer from the operation; neither does it affect the healing of the osseous incision, further than by requiring a little longer time for producing firm union. Not only so, but we can go a step further, and state that the result of the operation and straightening of the limbs has been to improve and strengthen the constitution. The patients are able to walk freely about, the physical deformity has been removed, and thereby a load has been lifted from their minds, which in itself conduces to improved health. Thus none were rejected on account of their weakness constitutionally, the only test being the state of the bones. If the period of *ramollissement* had passed and the bones had become firm the operation was proceeded with. On several occasions the patients were so weak that there was considerable hesitation about administering an anæsthetic. Many have been carried to the wards by their friends, as they were unable to walk except by the aid of crutches, and that for a very short distance; they have been operated on, and have gone out on their feet, and have become useful members of society, able to work for their own maintenance.

It is further interesting to note that a number have passed through attacks of acute diseases after the operation had been performed, such as scarlet fever, measles, and diphtheria, and that while these diseases have run their ordinary course, the wounds have not been affected by them: they have healed in the same way as the others did, by vitalization of blood-clot without the production of pus. In a case of scarlet fever the rash appeared on the third day after the operation, the fever ran its usual course, desquamation followed, and a portion of skin from the neighbourhood of the wound shed, taking along with it an almost transparent layer of delicate epithelium from the surface of the blood-clot, leaving, however, the latter covered.

When osteotomy is viewed in relation to other methods proposed for the relief of such deformities of the lower extremities, it is seen to be at least as safe, much more speedy in its action, and a great deal more certain in its results. Besides, most of the other methods are applicable alone to children, their effects for the most part being inappreciable when applied to adolescent life; whereas osteotomy has had excellent results up to thirty-six years of age. As to the time required from the date of the operation till the patient is able to walk without artificial support, this varies, but ten weeks may be taken as the average: six weeks in splints; the next fortnight walking with crutches, and the following one learning to walk without them. This time is for the adult; children are able to go about much sooner. The result which is looked for and obtained is a straight limb with complete movement of the joints.

A surgeon said not long ago that he did not care about such operations, as they were required principally among the poorer classes. This is no doubt true, and the truth of the assertion enhances the value of the operation; for it is among the working classes that the struggle for existence is keenest, and where such physical malformations are not only looked upon as unseemly, but are actually barriers to many occupations. But though poor in purse, there is no class of patients richer in gratitude. The contrast between the dejected frightened look with which these patients enter the wards, bundling themselves into corners out of view, and the manner in which they walk about on their return from the home with happy faces, betokening the consciousness of having gained a lease of new existence, is indeed a pleasant sight. The patient feels that you have taken away a reproach from him; you have enabled him to earn his bread, and you have placed him on a footing of equality with his fellows; and the man for whom you bring about such things cannot easily forget. But the mere fact that you can take up a deformed fellow, and by a few touches and a little after-care set him straight, ought in itself to be a recompense.

CASES OF RUBEOLA.

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IN THE LANCET of March 13th a case of rubeola was published by Dr. Dyce Duckworth, who prefaced his account of it with the remark that, "as doubt still exists in the minds of many experienced practitioners respecting the peculiar and specific nature of rubeola, it seems desirable to place on record all cases that may be met with." Accepting this dictum, and also the remark of Professor Thomas of Liepzig, in Ziemssen's Encyclopædia of Medicine (vol. ii., p. 136), that "epidemics of rubeola have not yet been sufficiently studied," I am induced to publish a short account of two cases of rubeola seen by me.

CASE 1.—On April 3rd, at 10 A.M., I was called to see a young gentleman, aged seventeen years, who stated that though he had gone to bed quite well the previous night, he had not slept well, feeling restless and feverish. On examination, I found the face, tonsils, and uvula somewhat swollen, the two latter dusky-coloured, and the cervical glands enlarged. The face, neck, and arms were covered with a pale-red rash, slightly raised above the skin. The spots of eruption were generally round or oval, though some of the patches were irregular in outline, more especially on the neck, where the eruption was thickest. The tongue was clean; bowels regular; no thirst. Eyes suffused, but no lachrymation. A gentle aperient saline mixture was ordered every four hours, and the patient allowed out of bed.

April 4th.—The rash has extended downwards over the trunk and behind as far as the nates. Eyes suffused; face is less swollen, but cervical glands more so; tonsils and uvula much as yesterday; tongue clean; appetite good; bowels opened; urine clear. Temperature 99·8°. Continue the saline mixture, with an astringent gargle. Evening: The rash has now extended to feet.

5th.—Less swelling of throat and glands of neck. Eyes not so suffused. Temperature 99·4°. Continue medicine and gargle.

6th.—Eruption fading. Omit medicine, continue gargle.

7th.—Eruption disappeared from face and extremities, but still faintly seen on the body. Temperature yesterday and to-day normal.

8th.—On calling found that my patient, feeling quite well, had gone out to walk.

Remarks.—On first seeing this case I inferred it was a case of measles, the eruption being modified in consequence of the patient having suffered from a severe attack of measles eight months previously; further, the eruption was so dissimilar in appearance to what I had previously seen in a few cases of rubeola seventeen years ago at Malta, and in one case at Aldershot eight years ago, at which periods the eruption more resembled that seen in scarlatina than measles. I was, however, led to believe it was a case of rubeola from the sudden appearance of the eruption in one previously in good health after exposure to contagion, the patient stating that he must have caught the disease from a boy in the school the day prior to his own attack, the boy having been covered with an eruption.

On the second day of the illness Dr. Dunlop, who had seen and described in THE LANCET of Sept. 30th, 1871,

an epidemic of rubeola, saw the patient with me, and again on a subsequent occasion, and agreed that it was undoubtedly a case of rubeola. This view has been since confirmed from three other cases having occurred in the same school, and three more in the practice of an acquaintance at St. Helier's, who described the course and appearance of the disease much as I found it.

Contrary to Dr. Dunlop's experience in the epidemic recorded by him, there were no petechial spots on uvula or tonsils, nor red flushes over the joints. The constitutional disturbance was all throughout very slight, and the appetite so good that the stomach was never deranged from being overloaded, and a purge was ordered on the 7th. I did not examine the urine for albumen. It was clear throughout the illness.

CASE 2.—On April 14th S. N——, a girl of eleven years of age, got wet during the afternoon; she was then quite well. At 9 P.M., feeling cold, she was sitting near the fire, when her mother observed her face swollen and covered with a red rash. On examination this was observed to cover the whole body. At 11 P.M., the mother said, the girl was very feverish.

April 15th.—I saw the girl at 12 A.M. She was reported to have slept well. The face was swollen, eyes suffused, no lachrymation, cervical glands enlarged, uvula and tonsils slightly swollen, of a dusky red, and covered with petechial spots, but no complaint was made of the throat feeling sore. The face, body, and limbs were covered with a rose-red rash, more resembling scarlatina than measles. There was little fever. Temperature 99·2°. No thirst or headache, tongue slightly furred, urine clear. A purge of compound jalap powder was ordered, and a diuretic saline mixture to be taken every four hours.

16th.—Bowels not relieved, repeated the purge, and continued the mixture. Temperature 99°. Face less swollen, throat, cervical glands, and eruption as yesterday, eyes suffused, no lachrymation. Evening—bowels moved.

17th.—Eruption almost disappeared; throat less swollen; petechial spots fainter in colour; still some swelling of face, with slight suffusion of the eyes; cervical glands less swollen; temperature normal; urine depositing urates on standing. Continue saline mixture thrice daily.

18th.—Eruption gone; no swelling of face; throat only very slightly congested; no petechial spots; slight swelling of cervical glands. Omit medicine.

19th.—Quite well.

Remarks.—This case did not much resemble the other. The eruption was quite different in appearance, being rose red and more diffused, not patchy. According to the mother's statement, it was all over the body when she looked about 9.30 P.M. on the evening of attack; whilst it gradually spread downwards in the first case recorded; the eruption seemed to fade equally generally over the body. Then the petechial spots on the throat were well marked in this, but absent in the first case. There was little constitutional disturbance. No exposure to contagion could be made out.

Jersey.

HUMAN AND ANIMAL VARIOLÆ: A STUDY IN COMPARATIVE PATHOLOGY.

BY GEORGE FLEMING, F.R.C.V.S.,
ARMY VETERINARY INSPECTOR.

(*Concluded from page 375.*)

GOAT-POX.

THE goat has a variola of its own, which possesses as special and distinctive characters as that of the animals I have already described, and is entirely independent of infection from other species. In some countries this *Variola caprina* is apparently unknown, in others it is extremely rare, while in at least one country, Norway, it is a frequent, if not a continuous disorder, amongst the caprine population. I am not aware if it has ever been witnessed in this country, where goats are so few in number; for Germany, Bollinger says it is so infrequent, that in the course of twenty or thirty years scarcely half a dozen cases are recorded. He is of opinion that goats receive the disease either from cattle affected with vaccinia, or sheep suffering from sheep-pox. But he admits that though now and again the same form of variola is witnessed in cows and goats, yet that the latter, as a rule, remained exempt from the disease when confined in the same stable with infected cows, and that the inoculation of goats generally yielded negative results. In order to prove that goats may be infected with sheep-pox, he gives the following on the authority of Prietzsch: "In a stable in which sheep suffering from sheep-pox were confined, three goats were simultaneously attacked with the disease, the eruption being the same as in the sheep. Upon the udder were numerous pisiform variolæ in the form of hard, flattened papules, with a trifling amount of lymph; papules were also distributed over the body, being more numerous upon the hind extremities than the abdomen. Marked symptoms of fever were also present, with inappetence, swollen lips, and a somewhat profuse muco-purulent discharge from the nostrils. In fourteen days convalescence was established. Two other goats were inoculated on the ear with the virus of sheep-pox; a single pustule formed at the seat of inoculation, and the animals did not afterwards take sheep-pox."

That there is no relationship, so far as origin is concerned, between sheep-pox and goat-pox, nor yet, for that matter, human variola, is evident if we look at a country where the latter is all but unknown, and the former is not seen. From 1864 to 1876 inclusive, sheep-pox has been reported only twice in Norway; in 1865 there were two cases, and in 1868 fifteen cases, all due to foreign importation. According to Hansen, the official veterinary surgeon in central Norway,[1] in 1867-68-69, and 1874 and 1875, extensive outbreaks of goat-pox were observed; and according, also, to the official veterinary statistics in 1865, eleven cases of the so-called "water-pock" (*Variolæ serosæ*), and in 1868 four cases of common goat-pox were recorded in South Norway. Many cases which escape the notice of the Government veterinary surgeons are supposed to occur. In 1871 Dr. Cæsar Boeck, of Christiana, was on a botanical excursion in South Norway, and in July, in Thelemarken, he saw a drove of cows and goats being driven from the woods into their huts. The cattle were quite healthy, but about forty of the goats were affected with a variolous eruption on the udder and teats, as well as about the mouth. In some there were merely deep dark-coloured sores remaining, in others—the majority—there were seen thick brownish crusts, about the size of a pea, on the mouth, udder, and adjoining parts; while in a few the disease was so recent that, with the crusts, there were also observed pustules from the size of a lentil to that of a pea. From inquiry and examination, Boeck was of opinion that the exanthem had been more or less general over the body, and that there had been fever and resulting emaciation. The milk secretion had been almost diminished, and the fluid itself was drawn with difficulty and pain. None had died, and no other animals had, so far as the shepherdess knew, been in contact with her drove. The cows were fifty in number, and none of them showed the least trace of disease. The cows and goats were milked indiscriminately by three women, whose hands were not washed from the commencement to the end of the operation; so that there was abundant opportunity for transmission of the disease from the goats to the cows, had the latter been susceptible; while the constant association of the two species, particularly in the closely-packed sheds, gave every facility for infection through the atmosphere, if this could have taken place. Experimental inoculation would have been tried, but no good lymph could then be found. The epizoöty appeared in the spring, among the four-year-old goats which had been kept during the winter by themselves in small sheds. When they joined the other goats at a later period, the outbreak became general in a short time. Flocks of sheep associated with the goats without any disease resulting in them. Sheep-pox—a very fatal disease—had never been seen in that part of Norway. Boeck, who contributes his observations to the *Deutsche Zeitschrift für Thiermedicin* for December, 1879, alludes to Veterinary Surgeon Hansen's observations with regard to the outbreaks in 1867-68-69, and 1874-75, in *Gudbrandsdalen*. In the first year the malady appeared in August in two different flocks, numbering 170 goats, attacking without exception the males, kids, and those in milk. In the males the eruption was sparse, and limited to some pock pustules on the scrotum. (In the following year, the exan-

[1] Gudbrandsdalen d. h. Gudbrandsthal.

them on the males extended to the inner surface of the thighs.[1]) Hansen was called in when 13 of the 170 goats had died, and nearly all the others were affected. On examination of two of the carcases, he found the eruption all over the body, and pustules and ulcerations on the mucous membrane of the stomach and intestines, as is often witnessed in malignant sheep-pox. The origin of the outbreak could not be accounted for, the goats not having been in contact with strange animals, and there was no similar disorder prevailing among other creatures. "I have practised in Gudbrandsdalen," says Hansen, "for twenty years, and I have never seen either cow or sheep-pox." In the goat-sheds were 60 cows and 80 sheep, but these remained healthy.

In June, 1868, in another district of the same parish, Hansen was sent for to see a herd of goats, and of 114 eighty-four had an eruption of pocks on the udder and teats; twenty were severely affected, and, in addition to the pocks on the lacteal apparatus, there were many on the inner side of the thighs and on various parts of the abdomen, some of them having ruptured and left large sores. The pain was so acute during milking that the animals cried and struggled, and had to be held. The milk was rather viscid and mixed with blood. The disease existed in all stages among the animals, from red spots to shedding crusts and the formation of cicatrices. The outbreak had only occurred eight days previously. Thirty animals were yet unaffected, and these were isolated. The neighbouring goat-farms were free from the malady, and Hansen could not account for its presence on this farm; but as it was only distant about half a mile (Norwegian) from the place where it prevailed the previous year, it might have been conveyed from there. In July all the goats on the farm had been infected; at the commencement of August goat-pox had nearly disappeared, and during the entire period of the outbreak the cattle there and in the neighbourhood had continued healthy.

On August 17th of the same year, Hansen was again called to attend upon goats at another place, not far from the last, where there were seventy-four goats, only thirteen of which were free from goat-pox. Twelve were severely affected, and three were so ill that they could not follow the others. The pocks on the udder, teats, and thighs could be studied from the first or inflammatory stage to the crust-forming and cicatrising period, the cicatrices being distinguishable from ordinary scars by their light hue. The diminished secretion of milk and emaciation were very marked, though the malady was not so fatal as in the previous year. On four neighbouring farms the disease also appeared among the goats.

When the disease once appeared in a flock it spread rapidly, and spared neither young nor old, male or female; those goats giving most milk having, however, the mildest attack, and the males having the pock-pustules most developed on the inside of the thighs. The contagium might have been conveyed to these farms by direct contact with the first infected farm, or, as was more probable, through the medium of servants and children. In the following month a number of other farms were visited by the goat-pox. Some of the goats had phlegmonous inflammation of the udder as a consequence of the disease, and had to be killed.

In 1869 two herds of goats were attacked, but timely and careful treatment having been adopted the results were not so serious. The milch goats were the worst attacked, and the mortality was greatest in the largest herds. The total number of cases for this year was 129. In the four succeeding years Hansen did not know of any outbreaks.

In July, 1874, goat-pox broke out in two different districts, one and a-half Norway miles apart, three farms being visited by it—one with 150 goats, another with 120, and the third with 60. All of these were more or less affected. The disease first commenced with slight fever; then followed efflorescence, subsequently the eruption on the udder and teats of small vesicles the size of a pea, and which soon became converted into pustules. Not unfrequently suppurating furunculi formed, and the whole udder was involved.

In some instances pocks appeared on the lips. Towards the end of August, there were reported 580 cases of goat-pox in the two localities. On the neighbouring goat-farms the disease was not seen. There was no evidence that it could be communicated to mankind, though it appeared not improbable that mankind could convey it from one flock of goats to another. Ten deaths only were reported. In 1875 there were 200 cases. Hansen states that altogether there were 1300 goats attacked, with from 25 to 30 deaths—about 2 per cent. The incubative period appeared to be short, certainly not longer than a week, while the duration of the disease was from two to three weeks in the severer cases. The pock cicatrices were more or less stellate-shaped. Immunity was very rare indeed, nearly every goat exposed to infection taking the disease. The outbreaks always occurred during the summer months, and the epizooty did not extend beyond Hansen's official district. Boeck and others competent to judge had no doubt whatever that the disease was variola. Neither sheep nor cattle, notwithstanding their constant exposure to infection and being crowded with the goats in close sheds, became affected. Human variola was not present in the district during the years when goat-pox prevailed.

I have entered into these details with regard to goat-pox, because they support in the strongest manner the position I have taken up with respect to variola in man and animals, and prove that, inasmuch as we have shown that there is a cow-pox, a horse-pox, and a sheep-pox, there is also a goat-pox, independent of the variolæ of other animals.

SWINE-POX.

Swine-pox is not a very rare disorder, and though I fail to find more than one outbreak recorded as occurring—though outbreaks may be frequent—in this country, yet I have been assured by a very observant and competent veterinary surgeon that he saw a large number of swine suffering from the disorder in Kent. No small-pox or cow-pox was present in the locality. Like the ovine variola, the *Variola suilla* is a general eruptive disease, the symptoms being pretty constant in their development, and resembling those of sheep-pox. After the febrile phenomena, which are often very intense and continue for some days, there appear on the back, abdomen, chest, neck, head, and inner surface of the thighs, petechiæ, which soon become papules. Towards the sixth day there are vesicles, and about the ninth or tenth day pustules; the contents begin to desiccate and form crusts, which are eliminated in a few days, leaving a well-defined cicatrix. The eruption appears discrete and confluent, the disease being benignant or malignant, regular or irregular, according to the form it assumes. Young pigs are most susceptible, and the mortality often reaches twenty or twenty-five per cent. The malady is very contagious, and its course and complications, as well as infectiousness, are very closely analogous to those of sheep-pox. One attack protects from another. Felix (*Recueil de Méd. Vétérinaire*) describes an outbreak which prevailed among swine in the Dordogne department, during four years; and Rueling, Greve, Spinola, Viborg, Eisel, Hering, and other competent veterinary authorities have studied swine-pox at various times. Gerlach has experimentally proved that the disease can be transmitted to sheep, and the sheep-pox to pigs. Cases of accidental transmission from sheep have been recorded. Bollinger mentions that some young swine were attacked after being lodged in a pen where diseased sheep had been located some months previously, and these pigs communicated their malady to others which had not been in the shed in question. But that there is no genetic relationship between swine and sheep-pox is again proved by reference to Denmark, where the latter does not exist, and where, nevertheless, swine-pox is sometimes prevalent, as in 1878, when it appeared in several localities in Jutland, according to the veterinary sanitary reports of that kingdom. The same evidence could be given with respect to other countries. Accidental transmission of human small-pox to pigs has been recorded now and again, and that this transmission may take place I do not deny; but it certainly does not prove that swine-pox is dependent for its origin on small-pox. The former occurs where the latter is not present, as in Denmark, and small-pox may rage for years in districts where pigs are numerous, and the latter show no signs of variola. In the Würtemberg reports for 1877 mention is made of the prevalence of the "wild" or *Wasserpocken* (*Variolæ serosæ*) among suckling swine. These pocks soon burst, and their contents mixing with the milk, were ingested by the young pigs in the act of sucking. These had in a short time a yellowish-brown eruption, first about the eyes and nose, and then over the entire body. When the eruption was noticed early, and

[1] From this it will be seen that the male goats are as liable to the goat-pox as the females. It is the same with the rams associating with flocks of sheep, and which suffer as much as the ewes; and it would be the same with bulls or bullocks, did they consort with cows affected with cow-pox. Sex makes no difference.

the young pigs were then removed from the sows, the consequences were not so serious; but when the exanthem extended over the entire body, they quickly died. Bathing them in bran water or camomile tea was supposed to have cured a good number. No mention is made of small-pox among people. In 1878, according to the *Veterinary Journal* (vol. vii., p. 210), there was a serious outbreak of swine-pox in many localities in the Hernals and Baden districts. It first appeared among swine of Hungarian origin imported from Odenburg, and from them was communicated to the native herds. The mortality was unusually great. The conditions attending the appearance, course, and termination of the disease were precisely analogous to those which obtain in sheep-pox, and the veterinary sanitary measures in force for the latter were adopted successfully for the swine-pox. No mention is made of sheep-pox, cow-pox, or small-pox prevailing at the time.

DOG-POX.

In the dog, variola has been observed and described by many authorities, and is, in fact, a comparatively well-known disease to veterinarians. It chiefly attacks young dogs, though old ones are not exempted, and one attack affords immunity from others. *Variola canina* commences, as in other animals, with fever, which continues for two or three days, and is then followed by the appearance over a large surface of the body, though rarely on the back or sides, of red points resembling flea-bites, which in a very short time are the seat of papules, and then of vesicles. The contents of these become purulent, and finally dry into a crust, which, being shed, leaves a marked cicatrix. In the dog, as in the sheep, goat, and pig, the disease does not always maintain the same form; it is sometimes epizoötic, and is benignant or malignant. Young dogs nearly always succumb, and a necropsy often reveals the presence of variolous pustules on the mucous membrane of the respiratory and digestive organs. The disease does not appear to be very infectious, though it is contagious and inoculable. It appears to be communicable to mankind, for Bösenroth[3] saw the disease affecting dogs around the nose, face, eyes, and back, and the attendant became infected. The dog does not appear to be very susceptible to the variolæ of other animals, nor yet to that of man. I cannot find but one instance mentioned in which small-pox was communicated to this creature, notwithstanding its very close association with mankind and consequent exposure to infection. Greve inoculated eight dogs with the matter of human small-pox, and three of them became covered with pustules and died. Vaccination only develops insignificant bullæ containing pus; scarcely any "pit" remains.

I am not aware that variola has ever been observed in the cat.

CAMEL-POX.

The camel has long been known to suffer from variola. Agnelli, in 1850, observed an outbreak among camels in Algeria, the symptoms of which were like those of cow-pox. When the Arabs were inoculated with the lymph they were protected from small-pox. Masson[4] makes similar remarks with regard to the camel in India.

Hares and rabbits are said to have a form of variola, especially in North Germany, and which sometimes is very malignant.

VARIOLA GALLINARUM, ANSERUM, ETC.

Fowls have also their variola, according to the reports of various observers, published during many years. Bollinger has investigated what was supposed to be variola in a poultry yard at Zurich, but found it to be a contagious epithelioma, chiefly localised upon the head. But what appears to be a true variola has often been studied in fowls, as the loss it caused was very great, and its contagiousness caused it to be wide-spread. In these outbreaks the birds were dull and feverish; the feathers stood erect; the wings and tail were pendulous, and an eruption of pustules appeared on the head, neck, and inner surface of the wings and thighs. In the turkey they appeared as citron-tinted vesicles, surrounded by a red areola. In from twelve to fifteen days after their development these pustules became crusted, the fever disappeared, and health gradually returned. In geese the pustules on the neck not unfrequently increased in size and formed abscesses; the feathers were shed, pieces of skin even became detached, and the resulting lesions were so serious that death was not an unusual termination. The disease was very contagious.

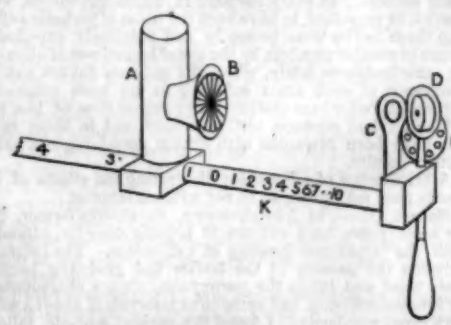
In the official report on the sanitary condition of the domesticated animals in Belgium during 1878, I find that Government Veterinary Surgeon Dejonghe, of Wyngene, describes this variola of poultry. It prevailed as an intense enzoöty during the last half of 1878, frequently attacking all the fowls on a farm, and being most prevalent in low damp situations. It was markedly contagious, or rather infectious, and the prevailing winds had apparently some influence in its dissemination. Young birds suffered most severely, and bad food aggravated its severity. The earliest observed symptoms were erect plumage (horripilation), complete indifference, *malaise*, and general prostration, anorexia, great thirst, ardent craving for cold water, and rapid emaciation. There appeared on the skin and visible mucous membranes numerous small nodules, which were soon transformed into pustules. Most frequently these pustules soon after their appearance ruptured, fetid matter escaped, and only superficial sores remained; these generally cicatrised rapidly. Where the skin was thick, cicatrices, often deep, remained. On the respiratory mucous membrane the pustular eruption caused an abundant formation of muco-pus, which sometimes caused death by obstructing the air-passages. Generally, however, a fatal termination seemed to be due to debility, septicæmia, or pyæmia. In birds which survived, complete recovery did not take place for a long time.

[3] Magazin für Thierheilkunde, 1860, p. 341.
[4] Narrative of a Journey to Khelat, Trans. of Med. and Phys. Soc. of Bombay, 1840, p. 214.

NEW INSTRUMENT FOR ESTIMATING ASTIGMATISM.

BY TEMPEST ANDERSON, M.D., B.Sc.,
FELLOW OF UNIVERSITY COLLEGE, LONDON.

ASTIGMATISM is that condition of the eye in which the refraction is different in different meridians of the eye, owing to the refractive media not being perfectly symmetrical. An eye with a cornea shaped like the bowl of a spoon, instead of like a portion of a sphere, would be astigmatic. The instrument exhibited by the author at the meeting of the British Association at Swansea has the following advantages. 1. The observations and measurements are made by the observer, and are entirely independent of the patient's sensations. 2. An image thrown on the retina being used as an object, the error arising from the vessels or optic nerve being before or behind the retina is avoided. 3. The refraction and accommodation of the observer does not affect the result. It is only necessary that he should be able to see whether certain lines are sharply defined. A lamp (A, in the engraving) is provided with a



A, Lamp. B, Condensing lens and wires. K, Graduated bar. C, Convex lens. D, Mirror. E, Disc of lenses.

condensing lens, which has a screen of radiating wires (B) across its front, thus giving a bright field with black lines. This slides on a graduated bar (K), at the other end of which is a convex lens (C). It is better to have two of these of different powers, 4 and 10 dioptrics being convenient. Close to the lens, and at an angle of 45° to it, is a plane silvered mirror (D), which reflects the rays at right angles to their

former path. The instrument is held so that this pencil of rays enter the observed eye, and when the screen is at the proper distance an image of it is formed on the retina. The mirror has its centre left unsilvered, and has an ordinary disc of lenses (E) behind it, to render the retina and the image on it visible to the observer by the ordinary direct method. The bar is so graduated that when an image of the whole or part of the screen is sharp on the retina, the figure opposite the screen expresses the refractive error of the meridian by which the image is produced. Hence, if the image of the whole screen is seen to be equally sharp, the eye is known to be not astigmatic, and the graduation gives the number of dioptrics by which it is myopic or hypermetropic. If the lines be not all sharp at once, then the most distant point at which any of them is distinct gives the refraction of the meridian of minimum refraction, and the point at which that at right angles to the former is distinct gives that of maximum refraction. The least of these gives the spherical element of the correcting spectacle required, and their difference that of the cylindrical element. The meridian of maximum refraction is that in which the line appears distinct when the screen is at the greatest distance. If the cylindrical lens be convex its axis must be in this meridian; if concave, then at right angles to it. The makers are Cook and Sons, York.

Stonegate, York.

ON THE

USE OF OLIVE OIL IN LARGE DOSES FOR SOFTENING AND CAUSING THE EASY EXPULSION OF BILIARY CALCULI.

By RODERICK KENNEDY, M.D.,
QUEEN'S COLLEGE, KINGSTON, CANADA.

IT is scarcely a matter of doubt that the means resorted to for solution and expulsion of biliary calculi have hitherto proved slow and uncertain in their operation. Systematic writers, as a rule, do not attach a great deal of weight to the value of the so-called solvents. Not a few incline to the view that remedies of this kind are practically all but inert. Others assert in plain terms that medicines having these powers do not exist. Chloroform alone, or with ether, in the hands of some, is said to have removed these bodies, but this mode does not seem to have come into general use, probably because it requires time, and the proof of success is inferential. A simple medicine, readily available in practice, and having the power of softening and expelling biliary calculi, it will be admitted has hitherto been a desideratum. Such a medicine I have, during the past year, used in a variety of cases, and, I am happy to say, always with complete success. In every instance in which the calculi were proved, or presumed, to have been the cause of periodic suffering, these bodies were promptly and painlessly expelled in larger or smaller numbers by the use of *large* doses of olive oil. In some instances lately, where the patients did not exhibit symptoms of such acute suffering as are more commonly witnessed, but where obstruction to proper flow of bile was evident, I had recourse to this remedy, and in these cases also have been rewarded with similar surprising and satisfactory results.

A brief notice of a few cases illustrating the effects of the means used may prove to be not without interest.

Robert C——, of Adolphustown, an elderly farmer, had for some years been subject to hepatic disorder, attended with the occasional passing of gall-stones. The intervals between the passing of the bodies had gradually become more brief, and lately the paroxysms, always characterised by intense suffering, had come on at intervals of about a week with great regularity. I found the patient anæmic, sallow, and very much exhausted. The usual remedies for the gradual solution of the stones had been tried, but radical relief not being obtained, mitigation of the intense suffering was what, previous to my being sent for, had been principally aimed at. I ordered six ounces of the oil to be taken at bedtime, to be followed in the morning by a full dose of castor oil. No motion of the bowels was obtained till next evening, after the administration of an enema. Twelve hours after taking the oil, the patient began to complain of a good deal of nausea and faintness, and for several hours there was considerable restlessness, and constant apprehension that the usual paroxysm was about to come on, but no acute pain. In the evening the enema was followed by several copious motions, each containing numbers of softened gall-stones, amounting in all to not fewer than two hundred, varying as to size from a large hickory-nut to a small pea, of a pale yellowish-green colour, semi-transparent, soft, easily broken up, and of a great variety of shapes. The patient had a good night's rest, and expressed himself in the morning as feeling very much better, and enjoyed a light breakfast. After the lapse of two days, the paroxysms threatening to return, I ordered the oil to be repeated two nights in succession. The expulsion of a quantity of slimy bilious-looking matter followed, but no more calculi. The calculi had evidently become dissolved. The patient was left with directions to repeat the use of the oil a few times, at intervals of two or three weeks, and after this as might be indicated by the recurrence of symptoms threatening the return of the paroxysms. I saw the patient five months after my first visit. While there were indications of organic disease of the liver, no more calculi had been passed, and the paroxysms had ceased to return.

Mrs. W. F——, of Ernesttown, presented a case very similar to that of C——. She had for some years suffered from fits of intense pain, generally coming on after a hearty meal. She was directed to take full doses of the oil for two consecutive days. She passed about two hundred calculi, varying in size from a grain of wheat to a filbert. The periodic attacks of pain ceased with the removal of the gall-stones.

Gabriel B—— and Clinton F——, both of this township, each presented a case of hepatic disease, characterised by obstruction to the flow of bile, accompanied by severe pain. The oil was administered with the effect of removing softened calculi of considerable size, but in smaller numbers than in the preceding cases, the general symptoms being relieved. A number of other cases might be referred to, in all of which the power of the oil to soften and facilitate the expulsion of biliary calculi was shown to be prompt and unequivocal.

The material point which may be deduced from these cases is that olive oil, administered in repeated *large* doses, seems to have an unquestionable power of so softening and partially dissolving biliary concretions as to render their expulsion comparatively easy.

Another fact I have noticed is, that although the administration of the oil at intervals of a few weeks or months does prevent the re-formation of the concretion for the time, yet the resort to the oil alone does not alter the causes or diathesis upon which the formation of these bodies depends.

A FIFTH CASE OF EXTRA-UTERINE PREGNANCY TREATED BY ABDOMINAL SECTION.

By LAWSON TAIT, F.R.C.S.

E. A——, aged forty, admitted to the hospital early in June. She had been married nineteen years, had five children, the youngest of whom was nine years old. She had been a strong, healthy woman until last November, when she missed a period, and very soon after had an attack of violent pelvic pain, accompanied by great prostration and sickness. She continued in bad health till March last, when she was examined by Dr. Wigglesworth of Liverpool, and declared to be pregnant. She applied to the Birmingham Hospital for Women at the end of May, when the diagnosis of extra-uterine pregnancy was made by Dr. Hickinbotham and myself in consultation, and she was admitted.

On June 30th I opened the abdomen, and found the pregnancy to be seated in the right broad ligament, the Fallopian tube having ruptured at its lower aspect and the ovum escaped into the tissue between the folds, as has been the case in all the instances I have operated upon. I made an opening at the upper and anterior part of the cyst, removed the child, which we had previously been quite certain was dead, cleaned out the cavity, stitched the margin of the

wound in the cyst to the wound in the abdominal wall, and left in a wide glass drainage-tube. All the details were precisely those described at length in the record of my previous cases published by the Royal Medico-Chirurgical Society.

During the next three weeks the placenta came away in pieces, the cavity gradually closed, and she left the hospital on August 16th quite recovered, and is now in perfect health.

Birmingham, Sept. 14th, 1880.

INFANTILE DIARRHŒA IN NEW ZEALAND.

BY LEIGHTON KESTEVEN, M.R.C.S. ENG.

THIS affection, which is principally cœtaneous with summer heat in this colony, and from its prevalence becomes epidemic in its character, is of a far more serious nature than the ordinary summer diarrhœa met with among infants in the home country, and from which indeed it is almost a distinct affection. The disease here has the same commencement as the ordinary form, consisting of loose slimy motions and cramping pains in the abdomen; but in the severe form which it takes here I have most frequently noticed as a premonitory symptom a discharge from the rectum (*previous to any loose stools*), small in quantity, and occurring only once, of thick lymph immediately before the diarrhœa has set in. Though I am unable to give any explanation of this, I have invariably noticed that the disease has then assumed the very worst form, and the motions have immediately become watery and mucous. At this stage constant sickness and loss of appetite supervene, rendering the administration of nourishment or medicine a task of great difficulty, and extreme emaciation sets in; the weakly succumbing here, and the stronger ones later on, of exhaustion, or dragging through a long and tedious recovery.

In the severer cases, however, the watery stools are succeeded after two or three days by intense tenesmus and tormina, accompanied by inability to retain the motions, and the complaint then assumes the character of acute dysentery. The stools become bloody, often consisting of little else than bright red blood and slimy shreds, unaccompanied, however, by any purulent matter. The constitutional disturbance is very great; tongue furred, pulse rapid and small, temperature as high as 100° or 101° F., and the respiration accelerated. No delirium. The little patient remains in this state for two or three days, or even less, when exhaustion sets in very suddenly; the temperature drops from 101° to 96° or 97°, and death occurs within twenty-four to forty-eight hours after.

The mortality in both forms which I have described is very great at all ages up to five or six years, after which it diminishes. This, I believe, is the case in all the Australian colonies, where this complaint takes the same form. Why it should assume such a severe character in these colonies it is difficult to give any accurate explanation; but from personal experience and a careful comparison of statistics I am inclined to assert that it is the impurity of the drinking water that is the chief factor in the disease, and that the warmth of our climate, which renders children such ready subjects to the disease, causes its extreme fatality. Thus, in Wellington, where the climate—though warm—has been less so than in other towns in New Zealand, the infant mortality (according to the Registrar-General's returns) has been greater by far from diarrhœa than in any other town in New Zealand, microscopic and analytical examination of its drinking water showing it to be swarming with animal and vegetable life, and loaded with decomposed organic matter in solution, whilst the water in other towns in the colony has been of a far better quality for drinking purposes. Children, too, in New Zealand are greatly infested with intestinal worms, which, though not the necessary factors of this disease, must tend greatly to aggravate the mischief and retard a cure.

Treatment, however, is, I regret to say, of little efficacy, and the only drugs which I have found of the least specific curative use have been the extract of Indian bael in combination with creasote, opium, and bismuth, and the Maori's favourite drug "koromiko," a native indigenous shrub, generally used as an infusion or spirituous decoction. Sulphuric acid I have invariably found to greatly aggravate the diarrhœa, whilst I have fancied I have seen in one or two cases a decided improvement under small doses of carbonate of soda and borax. A mixture of minute doses of castor oil I have heard greatly extolled, but I have found it very mischievous even when combined with opium and cardamoms. I have, however, been in the habit of administering a full dose of the oil previous to treatment with other drugs, and I believe it to be necessary or useful in removing any source of irritation to the bowel.

Nourishment, to be of any service, must be little and often, on account of the want of appetite and delicacy of stomach, but it is necessary to exercise very great care in this matter, as the irritability of the intestines is so great. Milk, port-wine, and the juice from half-cooked mutton are utilised most easily, whilst strong chicken jelly is a capital change of diet. Brandy should be administered plentifully from the first.

The pathology of these cases has been most indistinct in the few cases I have had the opportunity of making an examination, consisting in patches of more or less extreme congestion here and there in the mucous coat of the intestines throughout their entire length, amounting in the lower bowel to solution of surface continuity, but without any discernible deposit of pus being elicited even by microscopic examination.

Two or three points in this account seem to me worth drawing attention to, as I have neither met with them myself nor read of them, as occurring with this disease, outside of these colonies—viz., the premonitory lymphous discharge, the rapid fatality of the severer cases, the early assumption of the dysenteric character and sudden termination, and the absence of ulceration (true) or sloughing of the bowel which occurs in dysentery.

Climate, of course, modifies many diseases; but the difference between the home climate and ours does not seem to me to be enough to account for the extreme severity and variation of the disease as it occurs here.

Wellington, N. Zealand.

CASE OF CHRONIC GASTRIC ULCER, WITH TOTAL ABSENCE OF SYMPTOMS: PERFORATION; PERITONITIS; DEATH.

BY W. G. CRESWELL, L.R.C.P., L.R.C.S. EDIN.,
MEDICAL OFFICER OF HEALTH, SALTLEY.

THE following notes from my case-book will, I think, be of interest, inasmuch as they point out the insidiousness of the above disease even more fully than does Mr. Lacey's case, reported in the issue of THE LANCET of April 24th last:—

E. C——, aged twenty-one, a factory girl, who had *never even complained of any morbid symptoms* since childhood, had on the afternoon of Dec. 27th, 1879, a sudden attack of "shivering," but was otherwise apparently all right. At tea-time, while stooping to toast some bread, she felt "something wrong" in the chest and epigastrium, and immediately went upstairs and to bed, where she vomited at frequent intervals a brownish fluid, and also everything she took. At the same time she complained of great epigastric and abdominal pain. These symptoms continued all night, and at 11 A.M. the next day she died in her brother's arms as he was carrying her by her own desire into the next room. I saw her at 12.30. She was then quite stiff, lying on her back with both hands clenched, and the right arm bent at right angles at the elbow, the hand pointing upwards. The legs were extended.

By the coroner's order I made a post-mortem examination on the afternoon of Dec. 31st, about seventy-eight hours after death. The body was of good physique and well-nourished; a little post-mortem discoloration present. On opening the abdomen, it was found to be full of a muddy milky fluid. At the upper part of the cavity both the peritoneum and the intestines were much congested, and slight adhesions were present in many places. There was but little gas or smell. The stomach was empty, and showed on the posterior surface, near the pylorus, a clean-edged round aperture, the eighth of an inch across. On examination of the inner wall, the ulcer was seen to be funnel-shaped and surrounded by considerable thickening. Other

parts of the gastric wall showed patches of congestion and erosion, but most probably these were not present during life. The heart was of large size, but healthy. The right auricle and large veins were distended with firmly-clotted blood, and this hyperinotic condition was more or less present generally. The hymen was intact, and the ovaries much congested, a menstrual period having been completed only two days before death.

After the most careful questioning, I could gather no account of any gastric symptoms, poor living, intemperance, anæmia, abnormal menstruation, or mental anxiety. The absence of hæmatemesis, or vomiting, was the more remarkable considering the anatomical position of the ulcer, which again, though perforating, was yet attended by the funnel-shaped thickening of a chronic ulcer. The other points of interest were the large size of the opening, and the attack of shivering coming on before the advent of pain. There was also marked absence of hour-glass contraction.

In the presence, however, of all these uncommon conditions, it will be noted that the patient was of the usual sex and age, and that the ulcer was in the usual anatomical site.

Saltley.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

SAMARITAN FREE HOSPITAL.

CASES OF RUPTURED PERINEUM.

(Under the care of Dr. GRANVILLE BANTOCK.)

CASE 1. *Complete rupture of perineum, with an inch of recto-vaginal septum; immediate operation; imperfect result; operation; cure.*—Mrs. B——, aged twenty-four, was admitted June 15th, 1878. The perineum was ruptured through the sphincter, with about an inch of the septum, in the second confinement, eleven weeks before admission. Some stitches were applied at the time of the accident, but the result was a very thin membranous perineum, and a recto-vaginal fistula large enough to admit a No. 12 catheter, through which flatus and fluid fæces passed into the vagina.

On June 17th the imperfect perineum was cut through, the edges of the fistula were pared, and a triangle of raw surface was formed at each side, the two meeting by their bases in the middle line of the septum; seven sutures of fine silkworm gut were used to bring the rectal edges of mucous membrane together, the ends being cut off short, and four deep sutures were employed for the perineum proper.

No opium was given. The highest temperature, 99·4°, was recorded in the evening after the operation. The bowels were moved on the fifth day by a pill containing colocynth and hyoscyamus. On the seventh day the perineal sutures were removed, and the patient went home on the seventeenth day.

CASE 2. *Complete rupture of perineum, with over half an inch of the septum; operation; cure.*—Mrs. K——, aged thirty-one, admitted Feb. 25th, 1879. The perineum was ruptured in the first confinement, six months before admission, after a labour lasting nineteen hours and terminated by forceps. Nothing was done to the perineum. There was no control whatever over the semi-fluid fæces or flatus.

On February 26th the usual operation was performed. Seven sutures of silkworm gut were inserted in the recto-vaginal septum and three deep perineal sutures.

No opium was given after operation. The bowels were opened on the fifth day by pills of colocynth and hyoscyamus given at intervals of four hours. The perineal sutures were removed on the seventh day, and the patient went home on the seventeenth day.

CASE 3. *Complete rupture of the perineum to the sphincter; retroversion of the uterus with rectocele and cystocele; operation; cure.*—Mrs. E——, aged forty, admitted June 24th, 1879. Four children; last in September, 1875. Treated for prolapsus by a variety of pessaries until she came under the notice of Dr. Wynn Williams (in the out-patient department), who admitted her for operation.

On June 27th, in addition to the usual double triangle, the denudation was extended about an inch up the septum, ending in a point. The vaginal mucous membranes were brought together by seven fine sutures, and the perineum was secured by five deep sutures.

No opium was given after operation. The bowels were moved on the fifth day, and on the tenth day the perineal sutures were removed. The healing process was so complete that the line of union could not be distinguished.

This patient was not able to leave the hospital till the twenty-third day in consequence of a slight attack of cystitis.

At a later period, some weeks after, Dr. Williams relieved her from the symptoms due to the retroversion by applying a Hodge's pessary.

CASE 4. *Complete rupture of perineum, ten years ago, with part of the septum; immediate opperation; failure from excessive constipation; operation six months after; failure; operation; cure.*—Mrs. S——, aged thirty-three, admitted December 10th, 1879. The perineum was torn completely, with part of septum, in the first confinement, after a labour of over twenty-four hours, terminated by forceps. Sutures were at once applied, and the bowels were kept confined for seven days. At that time the perineum appeared sound, but the evacuation was so solid that the whole gave way. After this she had no control over semi-fluid evacuations. Six months later she was operated on, but without any benefit.

On December 13th the usual operation was done. Four sutures in the rectum and five deep perineal sutures were inserted.

No opium was given until the next day, when two doses of fifteen and twenty drops of the tincture of opium were given respectively for pain preceding the menses, which appeared on the third day.

On the fifth day the bowels were freely opened after three pills of colocynth and hyoscyamus, given at intervals of four hours. The perineum was quite sound and absolutely free from irritation. On the ninth day the perineal sutures were removed, and the patient went home on the eighteenth day.

CASE 5. *Complete rupture of perineum and through the sphincter five years ago; operation; cure.*—Mrs. R——, aged thirty-seven, admitted March 11th, 1880. Five years before she was delivered of her sixth child by forceps, and felt unusually sore for some time afterwards. On getting about she found she had lost control over the bowel. Her condition in this respect was confirmed by the difficulty the nurse experienced in giving her an enema. Two years before admission she entered one of the general hospitals, where she was told she was too weak to undergo operation.

On March 15th, at 10 A.M., the usual operation was performed. Six sutures were inserted in the rectum, four in the perineum, and an uninterrupted horsehair suture was inserted in the vagina.

As the patient complained of some pain, twenty drops of tincture of opium were given at 2 P.M., also at 9 P.M., and again at 9 P.M. next day. On the fourth day the bowels were opened by a dose of Janos water, followed by a small enema. On the seventh day the perineal sutures were removed: the wound was quite healed, but the two stitches next the anus had cut the skin a little. The same night the menses appeared, preceded by a great deal of pain. She went to a convalescent home on the fourteenth day.

CASE 6. *Abscess in the recto-vaginal septum, resulting in recto-vaginal fistula and labial sinuses; fistula and sinuses freely laid open, the former by cutting through the perineum; operation subsequently; cure.*—M. D——, aged twenty-nine, single, was sent to hospital by Dr. Edis, and admitted on Jan. 12th, 1880. For several years she had complained of pain on sitting down, but was not aware of anything serious till October last, when she had an abscess, with the usual symptoms, which first broke into the rectum and afterwards at the vulvar orifice. From that time she suffered from repeated "gatherings." On examination an opening was found at the lower end of the right labium, from which thin pus exuded on pressure. A probe passed into it went backwards and inwards towards the middle line, and its point could be felt in the rectum within the sphincter. Another small opening at the bottom of the fossa navicularis led straight through into the rectum behind the sphincter.

On Jan. 19th the fistula was laid open by cutting through the perineum, the sinus from the right labium was freely incised, and a small abscess cavity on the left side, communicating with the fistula, was also laid open. The parts thus exposed were stuffed with lint saturated with equal parts of glycerine and sulphurous acid; after this with a watery solution of the same acid gradually reduced in strength to 1 in 20. After several weeks the patient was sent out, and was readmitted on May 11th with the parts soundly healed, but with a hæmorrhoidal condition of the mucous membrane around the rectal opening.

On May 12th, after due denudation, the rectum was restored by means of six fine sutures, whose ends were cut off short, as usual, and the perineum was brought together with five deep sutures.

No opium was required or given. The bowels were opened by three pills (given as above) on the fifth day; three of the perineal sutures were removed on the ninth day; on the eleventh the menses appeared; the remaining two sutures were removed on the fourteenth day, and the patient went to the seaside on the nineteenth, with the perineum quite sound.

CASE 7. *Complete rupture of perineum with part of septum five months ago; operation after four months; failure; operation; cure.*—A. W——, aged nineteen, single, a very stout young girl, sent by Dr. Dow of Pembridge-square, was admitted on June 15th, 1880. She was delivered by forceps in Jan. 7th last, and felt very sore afterwards. Nothing was done to the perineum, and she soon found that she had no control over the bowel, and had semi-fluid evacuations. She was operated on a month before at one of the general hospitals, when the quill suture was used. The result was a failure.

On June 16th the usual operation was done; six sutures were inserted in the rectum, and four deep sutures in the perineum. As there was rather more venous oozing from the edge of the vaginal mucous membrane in middle line, a small piece of sponge was left in the vagina just within for a few hours.

No opium was required. The bowels were opened by pills and Hunyadi on the sixth day, on which day, also, the menses came on. For the next three days menstruation was excessive, and some ergot had to be given. On the tenth day sutures were removed, with all healed, and on the nineteenth day she left the hospital.

Remarks by Dr. BANTOCK.—It will be seen that in only one case (No. 5) was any opium required, and then it was doubtful whether the pain was really at the site of the operation. The patient was a weak nervous woman, and appeared to bear pain very badly. The absence of pain after the method adopted in these cases contrasts strongly with what is observed after the old method of using the quill suture, as in Case 7. The patient voluntarily made the contrast, and said that she had suffered very severely for three days in her previous operation. It will be seen also that opium was not given for the purpose of keeping the bowels quiet and constipated. The disastrous effect of such a practice is well exemplified in Case 4. The quietude of the bowels for several days is ensured by their pre-evacuation previous to operation, and by the light diet which suffices for the first three or four days. On the fourth day I usually begin to administer some mild aperient, and for this purpose a pill, consisting of one grain each of the compound colocynth extract and hyoscyamus, given every four hours till the bowels act, is to be preferred. Sometimes the nurse is instructed to examine the rectum, and if hard fæces be found, to throw in from a quarter to half a pint of soapy water. This small quantity excites very little irritation, and may be retained for several hours, during which time it slowly does its work by softening what may be in the rectum. It is better that the evacuation should be slightly formed. Liquid matter is apt to insinuate itself into, and so irritate, the wound. Thus while measures are taken to avoid constipation, and to procure an early evacuation, it is undesirable that the bowels should be moved before forty-eight hours have elapsed. I now always cut off the rectal sutures close to the knot, and they give no trouble as a rule. Twice where the ends have been left about a quarter of an inch long it has been necessary to remove some of them a few weeks after. But with the ends cut off short the knot becomes embedded in the soft tissues, and the suture ultimately disappears by absorption. It is of great importance to get the bowels moved before the sutures are removed, for the sutures strengthen the perineum and anal opening. As the silkworm gut produces absolutely no irritation, provided the sutures be not drawn too tightly, this result is easily obtained. In no case has any alcoholic stimulant been given, nor has any antiseptic been employed. The raw surfaces should, however, be made very clean, and all bleeding should be stopped before the perineal sutures are drawn together. As a rule, there is very little bleeding, as scissors are chiefly used, and what little bleeding there may be is usually to be controlled by hæmostatic forceps.

So far I have not had a failure, and I attribute this to the simple suture and the silkworm gut. I have also the satisfaction of knowing that others who have adopted my method have been equally successful—notably Mr. Square, jun., of Plymouth, who tells me that he has now no hesitation in attempting the severest case, and with confident anticipation of success.

MANCHESTER ROYAL INFIRMARY.

APPARENT TYPHOID FEVER; CEREBRAL HÆMORRHAGE; DEATH.

FOR the following notes we are indebted to Mr. J. Hodgson, M.R.C.S., house-physician.

J. F. T——, aged forty-four, married, was admitted on June 14th, 1880. He stated that his previous health had been good, and that the present illness began with a fit of shivering one week before admission. Beyond this no history was obtained, owing to the patient's mental condition.

The following signs and symptoms were noticed: A husky voice, very slight cough, and a small amount of rusty sputum; fetid breath, a dry tongue, thickly coated with brown fur, except at the tip and edges, which were red; harsh breathing generally, slight relative dulness at the base of the right lung, accompanied by a few bubbling râles in that region, but no true crepitation or tubular breathing. There was no rash, no tumidity of the abdomen, but a little tenderness on pressure in the right iliac region. There was considerable enlargement of the spleen, as well as slight enlargement of the liver. The pulse was regular, 92, the heart-sounds were normal, the temperature 103·2° F., and the urine contained abundant albumen. Laryngoscopic examination showed the usual signs of catarrhal laryngitis. A milk diet and small doses of quinine were prescribed.

The next morning there was a slight remission in the temperature, but with this exception during the day the temperature continued between 102° and 103°; the physical signs underwent no alteration, the patient was frequently delirious and suffered from delusions of a religious character.

On the third day after admission, between four and five in the morning, the patient complained that he had lost the use of his right arm, and before long hemiplegia was well developed, the right side of the face and the right arm and leg being affected. Speech was not lost. Ophthalmoscopic examination showed that the discs were normal.

At 1.30 P.M., the bowels not having been moved since admission, a simple enema was given, which was followed by "pea-soup" evacuations. At five o'clock the abdomen was distinctly distended and tympanitic, the skin was exceedingly hot (temperature in the axilla 107° F.), and the patient became comatose, and died.

Necropsy revealed a recent hæmorrhage, occupying a large part of the left cerebral hemisphere. The blood, which had evidently been primarily poured out into the substance of the brain, had found its way into the lateral ventricle of the left side. The right ventricle contained a clot of blood, much less than that in the left. The basal arteries seemed healthy. The lungs were congested and œdematous at the bases, but showed no signs of hepatisation. The valves of the heart were healthy; there were no signs of endocarditis or pericarditis. In the lower part of the ileum a few congested spots existed, about a quarter of an inch in diameter, these were in some instances raised and hard to the feel. One or two of Peyer's patches near the ileo-cæcal valve were congested. The large intestine presented in its whole length numerous congested and raised spots, similar to those seen in the ileum; many of these were distinctly ulcerated. The spleen was considerably enlarged, weighing twenty-one ounces, and contained a large hæmorrhagic infarct, surrounded by several small ones. Abundant "pea-soup" fæces made their escape from the anus as the body was being placed upon the table.

PROFUSE INTRA-CRANIAL HÆMORRHAGE; INTENSE HEADACHE; VOMITING; DELIRIUM; ABSENCE OF HEMIPLEGIA; COMA; GLYCOSURIA; DEATH.

H. N——, aged thirty-eight, married, was admitted on May 22nd, 1880, at 11.30 P.M. He was very pale, his skin was cold and moist, and his pulse was weak; he was delirious, and complained of intense pain in his head. No trace of hemiplegia could be discovered, the patient walking into the ward with the assistance of his friends. The pupils were normal. He was put to bed, and an ice-bag was applied to his head. Shortly afterwards there was some vomiting.

At half-past one the next morning he became very violent and noisy; at five o'clock he was comatose, and at seven he was dead. Some urine was drawn off by the catheter, and found to contain sugar. It was ascertained from his friends that he appeared to be in perfect health up to the day of his admission; that he had spent that day at some pleasure-gardens, and had had no alcohol beyond three glasses of beer; that he was about to start for home when he suddenly complained of severe pain in his head, and shortly afterwards became temporarily unconscious on his way to the infirmary.

At the necropsy a dark clot was found, filling the lateral, third, and fourth ventricles of the brain; blood was effused over the base of the brain, and had extended upwards over the surface of the hemispheres, filling the sulci. The large ganglia and other important structures at the base of the brain were uninjured. No ruptured vessel or aneurism was discovered. The lungs were emphysematous. The heart, liver, spleen, kidneys, and other organs were healthy. There were no marks of external violence.

Reviews and Notices of Books.

The Utricular Glands of the Uterus, &c. By Prof. ERCOLANI. Translated under the direction of H. O. Marcy, A.M., M.D. Trübner and Co.

THE work of Professor Ercolani has been long known in its main feature to those who have followed the researches which have been recently made into the structure of the placenta; for although the title of the work would scarcely lead one to expect it, yet the main object of the author is to prove a view which he has been led to adopt of the structure and function of the placenta, while the description of the utricular glands of the uterus forms but a part, though a very necessary part, of the evidence which the author produces in support of his theory. This theory is as follows:—"There is produced in the pregnant uterus of mammals, including the human species, a glandular organ of new formation. This organ constitutes one of the two fundamental portions of the placenta, that is to say, the maternal portion, with which the fœtus is brought into intimate contact by the villi of the chorion, which composes the other portion of it, or the fœtal part. The villi of this latter part of the placenta penetrate always and obviously into the glandular organ or maternal part, in order to absorb the fluid which is there secreted, and thus to furnish the fœtus with the materials necessary for its nutrition."

With a view to establish this theory the author gives an account of "the utricular glands in mammalia in the gravid and non-gravid animal," their development and function; he points out their increase of size in the gravid state, and adopts the opinion of Eschricht that these glands, together with the simple follicles, "elaborate, during gestation, a fluid destined to furnish some elements for the nutrition of the fœtus, particularly when the organs which are charged with that office, or the villi of the chorion, are not fully developed." The human decidua, it is said, "may be considered as a product of exudation, due for the most part to the utricular glands, and the numerous openings which perforate it obliquely precisely indicate the mouths of these glands, which remain open in the decidua for the continual passage of the materials elaborated by the glands." In accordance with this view the author explains the formation of the decidua reflexa. He states: "Now if, according to the preceding observations, the uterine or true decidua is only a product of exudation, due in great measure to the secretion of the uterine glands and to the transudation of organisable fluids from the internal surface of the uterus, it becomes easy to comprehend the formation of the reflected decidua. While the whole internal surface of the uterus is covered with the uterine decidua, the ovum when reaching the uterus is also covered with a similar layer, formed by the same materials, which further serve to fix it at one point of the uterus. At this point the uterine and the reflected deciduæ are soon mingled together, precisely as will take place later, when the ovum, increasing in size, forces the reflected decidua which surrounds it against the uterine decidua, so that the two deciduæ blend into one single membrane." The serotina again is described as follows:—"This membrane, produced by the proliferation of the cells of the superficial or submucous connective tissue of the uterus, is the stroma whence originates the glandular organ which supports and envelops the villi of the fœtal placenta in all their subdivisions." The author never tires of emphasising his view that the maternal part of the placenta is a new formation, owing "its origin in the human species to the new formation of special cells, which in the human species has received the name of decidua serotina." It has nothing to do with the glandular structure of the unimpregnated uterus. Indeed, Ercolani maintains that a "primordial destruction, more or less marked, of the uterine mucous membrane, is indispensable for the beginning and completion of the new formative process, from which, in all cases, results the development of the maternal portion of the placenta." Finally, it is held that the nutrition of the fœtus is not maintained by osmotic processes between the blood of the mother and that of the fœtus, but by absorption by the epithelium of the chorion villi of a fluid secreted by the cells of the serotina, which cover the chorion villi, and this is the case, however intimate the union may be between the fœtal and maternal parts of the placenta. It should be stated, further, that the author accepts the view that the placenta contains large sinuses possessing thin walls, and that these thin walls cover the fœtal villi in all their parts, and are closely united to them; that the blood of the mother is passed into these sinuses in its course from the arteries to the veins.

It would be impossible to enter here into the details of the descriptions of the placenta of various animals and of the human species found in this work. We can only notice some of the main conclusions arrived at by the author. With reference to the manner of nutrition of the fœtus by absorption of secreted material rather than by osmosis, our knowledge does not warrant any positive statement. The question is an extremely difficult one. There is great probability that such is the mode before the formation of the placenta; but the evidence brought forward in the work before us fails to prove such to be the case after that period.

The term "mucous membrane" is used in a peculiar sense by the author, for he says, "In woman . . . . the simple epithelial layer, which by itself represents all the mucous membranes of the uterus, . . ." Now this use of the term is one not generally accepted, and is, moreover, one which gives to the views promulgated a much more startling character than they really deserve, but for positive statements made by him (and quoted above) with regard to the nature of the deciduæ and serotina. In the destructive process preceding the process of formation of the placenta it turns out that in the human female it is only the epithelium which is destroyed, and the real question at issue between him

and other observers becomes one of interpretation. With regard to the nature of the decidua reflexa, it has been incontestably proved that it is an upgrowth of the decidua vera around the ovum at the point where the descent of the ovum has been arrested. It has been observed in process of formation, and it presents a structure precisely similar to the vera, including the presence of utricular glands. The serotina again, instead of being a new formation, has been shown to be but the deeper layer of the decidua vera at the insertion of the placenta, while the vera when examined soon after conception, presents all the characters of the mucous membrane of the uterus. The changes in these structures have been traced from month to month, both those in the cellular elements and in the glands. The nature and formation of the peculiar cells of the deciduæ is a subject upon which we still require further knowledge, and is one upon which there is ground for difference of opinion; but the evidence as to the development of the decidua vera, decidua reflexa, and decidua serotina from the mucosa uteri, remains untouched. The work before us contains the results of great research both in the study and in the dissecting-room. It gives a mass of information with respect to the views which have been hitherto held with regard to the uterine glands and placenta. It moreover brings prominently forward a subject which deserves more attention than it has hitherto received—that is, the part played by the glands of the uterus during pregnancy.

The translation has been made by Messrs. Smead and Jacobs, under the supervision of Dr. Marcy, and is on the whole well done. Some passages are, however, obscure in their meaning; whether this be the fault of the translator or of the author, we cannot say. The work is one not likely to have a large sale, and the publishers for this reason, amongst others, deserve the highest praise for their enterprising spirit.

The Diagnosis of Diseases of the Spinal Cord. An Address delivered to the Medical Society of Wolverhampton, Oct. 9th, 1879. By W. R. GOWERS, M.D., F.R.C.P. London: J. & A. Churchill. 1880.

THE remarkable advances made in the study of nervous disease and nerve-physiology is well illustrated in the history of our knowledge concerning the spinal cord. It would have been impossible ten years ago for so thorough a survey as the present lecture to have been penned; for there is hardly a page that does not contain some new fact, throwing light upon the function of the cord, and aiding in the exacter diagnosis of its morbid condition. The glory of Duchenne was to have definitely separated locomotor ataxy from the heterogeneous group of the paraplegiæ; but it has been left for his posterity to further analyse this group, and complete the differentiation which he set afoot. Nor must it be imagined that there are not obscurities still to be cleared up; and time may show that in some of their interpretations of phenomena the present generation have failed to grasp the whole truth. They have, however, added so much to the store of knowledge that, as compared with the preceding generation, we walk in the light, where they groped in darkness.

Dr. Gowers, so far as the limits of his book allow, deals with the several points worth knowing in spinal diagnosis. After some remarks upon the medical anatomy of the spinal cord, he discusses its physiology in relation to the symptoms of its diseases. It is here—and especially in the department of reflex actions—that most advances have been made. The integrity of the spinal cord can be fairly well deduced from the perfection with which the reflex actions are carried on—under due allowance for age and idiosyncrasy. The interesting fact that the superficial reflexes are lessened or abolished on the paralysed side in cerebral hemiplegia is at first sight difficult of explanation, especially as the "deep" reflexes (tendon-reflex) are increased in such conditions. Dr. Gowers points out the probable explanation. In the frog the superficial reflexes are controlled by a centre in the optic lobes; in man by one in the corpora quadrigemina. Now it is most likely that this controlling centre in man is itself kept in check by the higher motor centres. If their influence be removed by a lesion in the hemisphere, the controlling centre has full play and the reflex action is restrained. On the other hand, if there be a lesion in the cord itself the reflex action is increased. Of course we have long been familiar with the fact of the control exerted by cerebral centres over the spinal; but the explanation of the difference between cerebral and spinal lesions in their effect on the spinal reflexes has not been so clearly stated. After this, Dr. Gowers treats at some length upon the subject of "tendon-reflexes"; although he points out that the term "tendon" is too limited, and prefers to style them "knee-reflex" and "ankle-reflex." This is a very interesting inquiry, which has already borne good fruit in giving early indications of the presence of spinal cord disease. There seems no reason why other "deep reflexes" than those already discovered may not be added to the list; but those at present in common use are amply sufficient for practical purposes. Inco-ordination is attributed to impairment of reflex action. Other points in spinal physiology are necessarily dealt with, and in the next section the author proceeds to deal with the Anatomical Diagnosis of lesions. He gives an ingenious diagram and table showing the approximate relation to the spinal nerves of the various motor, sensory, and reflex functions of the spinal cord; and it is remarkable with what accuracy it is now possible to determine the exact level of a lesion. Then comes a section on Pathological Diagnosis, and the features pointing to the probable nature of the morbid change are passed in review. Lastly, some cases are given illustrative of the methods of diagnosis expounded in the book.

Dr. Gowers has throughout the work aimed at simplifying the nomenclature of the spinal cord. Thus, in speaking of its anatomy, he, to our thinking, wisely discards the phrases "columns of Goll," "of Türck," "of Burdach," which only land the reader in hopeless confusion; and prefers to speak of these regions as the "postero-median column," direct "pyramidal tract," and "root-zone." He is not quite so happy in substituting the term "cornual myelitis" for "anterior polio-myelitis;" for the latter, in spite of its uncouthness, is etymologically more correct and free from the charge of hybridity. Medical terminology is, however, so full of hybrid phrases, that this slight criticism may be thought too exacting.

In conclusion, we are thankful to the Wolverhampton Medical Society, at whose invitation Dr. Gowers delivered this lecture, for it has resulted in the production of a handbook which is a credit to our literature.

Archives de Neurologie. No. I. Paris: 1880.

IT is singular that France, which has produced so many writers in the field of neuro-pathology and physiology, should be almost the last country to have started a journal specially devoted to this subject. The gap is now filled, and the first number of a new quarterly journal devoted to these topics has just appeared, under the direction of M. Charcot. The editor is M. Bourneville, and the journal is published at the office of the paper which that gentleman also edits—*Le Progrès Médical*. An introduction by M. Charcot explains the reasons for its publication, and indicates the field proposed to be traversed in its pages. Whilst admitting the danger of the present age to multiply specialities, he points out that the wide relations of the nervous system to all parts of the organism render the institution of

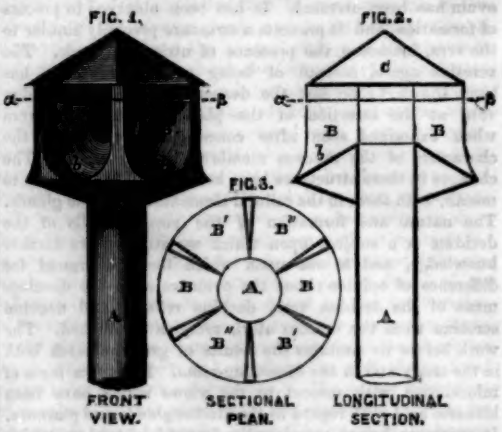
a journal specially devoted to its consideration far less limited in scope than appears at first sight. The *Archives* will deal principally with nosography and records of clinical observation, but will also embrace normal and pathological anatomy and physiology, experimental and therapeutical researches. This first number contains articles bearing upon almost every one of these departments. Thus, under the head of anatomy we have a short paper by Debove and Gombault upon the decussation of sensory fibres in the medulla. The point was settled by the examination of the medulla in a case of lateral amyotrophic sclerosis; and they clearly show that after decussation the sensory filaments mingle intimately with the motor fibres of the pyramids. A short note by M. Debove on the preparation of the spinal cord for microscopical examination follows. He keeps the cord for three weeks or longer in a 4 per cent. solution of bichromate of ammonia, then for three days in a carbolised gum solution, then for three days in alcohol. The sections made and the gum washed out, they are left for twenty-four hours in a saturated solution of picric acid, after which they may be readily stained with carmine. This process has yielded him better results than any other. Under the heading of Experimental Pathological Anatomy there is the first instalment of an investigation by M. Gombault upon the nerve-changes in subacute and parenchymatous neuritis. He has studied these lesions in guinea-pigs slowly poisoned by lead, and describes and figures degeneration and disappearance of the myelin limited to different segments of the nerve-fibre in this condition; and he further illustrates the lesion by changes similarly observed in muscular atrophy and traumatic neuritis in man. Under Pathology there is an article by M. Debove and M. Boudet de Paris upon the Motor Inco-ordination of Ataxics, where they attempt to prove, chiefly by means of the use of the "myophone," that inco-ordination is due to unequal tonicity of the muscles, and that its effects are diminished by their maximum contraction. Under Mental Medicine there is a lengthy and learned article by M. Magnan demonstrating the frequent co-existence of different kinds of delirium in the same insane subject; and the first part of an interesting contribution to the clinical and pathological study of Idiocy by M. Bourneville. The section of Therapeutics is represented by the record of two cases of hemiplegia, in which motor power and sensibility were restored by the use of magnets. This, again, is by M. Debove. A review of present knowledge upon Cephalic Thermometry by M. Boyer follows; and the closing pages of the journal are devoted to abstracts of recent published work in various departments and to a few reviews of books. Altogether the number is full of interesting and readable matter, and if the journal fulfil the promise of its first issue in subsequent numbers, it will, no doubt, be widely read. The second issue is to appear on October 1st, and, like our own publication in the same field, *Brain*, it is to be published quarterly.

New Inventions.

HALL'S PATENT VENTILATOR AND CHIMNEY-COWL.

THE accompanying engravings represent one of various types of the improved ventilator invented by Alfred Hall, M.D., F.R.C.P. London. Its main feature consists in an aggregation of four, six, or any other binary number of tubes or orifices surmounting the soil-pipe or other conduit from which foul air or fetid smells are emitted, and a glance at our illustrations shows that the object aimed at is attained without the use of any mechanical contrivance, or of any very intricate construction like those that form perfect labyrinths in some other ventilating arrangements.

Fig. 1 is a front view of the ventilator, representing the two orifices, B′ B″, that adjoin one another; Fig. 2 is a longitudinal section, and Fig. 3 a horizontal section taken through the line α—β, Figs. 1 and 2. A is the soil-pipe or



other conduit to be ventilated or disinfected; it is in the present instance surmounted by a system of six orifices, B B, closed up at the top by the helmet, C, and half trumpet-shaped at the bottom, as shown in section at *b*, Fig. 2. The current of air passes through the orifices B B, B′ B′, B″ B″, opposite one another, and a continuous exhaustion of the foul air or noxious vapours is secured by this means.

We have remarked that our illustrations represent but one out of a number of types of the same ventilator, which may equally well be used as a chimney-cowl. Another type is that of an ascending soil-pipe closed up at the top and surmounted simply by a cross of four short horizontal tubes, through which the suction of the fetid air takes place. This ventilator may be made of tinned iron or zinc plate, as well as of copper or terra-cotta. There being no mechanical contrivance or appliance of any kind connected with it, it is not likely to ever get out of order; and, if made of copper, it is practically indestructible.

Analytical Records.

DUROLEUM (HARD OIL).

(FERRIS, BOORNE, & CO., BRISTOL.)

TASTELESS, odourless, and unalterable preparations made from petroleum are rapidly superseding lard in pharmacy. Messrs. Ferris's new ointment-basis is excellent, and, though similar to several already in use, is firmer, which in hot weather, and especially in hot countries, is an advantage. We have received more than a dozen different samples of ointment made with duroleum, all excellent in quality, and certain to keep. The price is exactly the same as for ordinary P. B. ointment.

BARON LIEBIG'S LEGUMINOUS COCOA POWDER.

(P. STEIN, 7, IDOL-LANE.)

In this preparation of cocoa a portion of the fat has been removed and a portion of legumin added. Thus a highly nitrogenous food is obtained, rich in actual proteic or flesh-forming material. Chocolate prepared from this powder is excellent in flavour, and free from the somewhat unpleasant taste often observed in leguminous preparations. We think it a useful addition to the resources of the physician. The addition of sugar will, of course, reduce, in most cases advantageously, the proportion of proteids in the food.

SPARKLING NATURAL MINERAL WATER OF SCHLOSSBRUNNEN GEROLSTEIN.

(GEROLSTEIN WATER COMPANY, PHILPOT-LANE.)

An excellent table water, soft and pleasant to the taste, and possessing mild alterative properties. Alkaline carbonates and sulphates seem the chief constituents. It is obtained from an artesian well in the district of the volcanic Eifel.

SPARKLING HYGEIA.

(R. MCDOUGALL, 61, ST. PAUL'S CHURCHYARD.)

This is the result of another praiseworthy and successful attempt to vary the monotony of non-alcoholic drinks. "Sparkling hygeia" is a wholesome and pleasant drink, and is not unlike light champagne.

HARZER WATER.

(HARZER NATURAL MINERAL WATER COMPANY, 135, LONDON-WALL.)

This is a soft and pleasant table water. Whether it is better than some other of the new competitors for public favour is more than we can pretend to decide. Their name is legion.

GLENROSA: PURE HIGHLAND MALT WHISKY.

(T. MERRITT & CO., MARK-LANE.)

A pure and soft spirit of good flavour. It is vastly better than most of the Scotch whiskies sold.

THE NEW ROYAL INFIRMARY AT EDINBURGH.

(Concluded from page 398.)

ABOVE the head of each bed in the ward is a gas-jet, and there are gas pendents also in the centre of the ward. *Every one of these gas-jets is provided with its proper flue*, so that when the gas is lighted the air of the ward is not fouled, and the rate of renewal of the air is probably much quickened. These gas flues travel to the chimneys of the ward. This arrangement is worthy of all praise, and we trust that Mr. Bryce will succeed in convincing his brother architects that it is as unreasonable to neglect to provide proper flues for the gas as it would be to build fireplaces without chimneys. Although there are gas flues in the wards, they are not found in the ward annexes, but why there has been this falling away from the paths of virtue, and why nurses and others in the kitchens and elsewhere are still to be stifled in the old-fashioned way, is not apparent. The number of gas-jets appears to us to be excessive, and on one surgical pavilion floor we counted in all forty-eight jets, or three jets to each patient. These forty-eight jets are capable of burning (probably) something like a thousand cubic feet of gas in five or six hours (between four o'clock and ten in the winter), and we can only hope that gas does not cost 3*s.* 9*d.* per thousand cubic feet in Edinburgh.

The walls of the wards are of Parian cement, painted with oil paints. The floors are of deal stained yellow, with a double pathway of floor-cloth. It is a pity so soft a wood was chosen for the floor material, and we could wish that economy had been practised in other parts of the building, in order to lay parquetted floors, which can be done nowadays at a comparatively small expense. The woodwork throughout the hospital is of soft deal. It is gaping already in many places, and we were struck with the inferiority of the woodwork generally when compared with the excellence of the masonry.

A few words as to the sanitary offices attached to the ward. These are mainly in the turrets, and are entered by swing doors at the ends of the wards. These doors are protected by wooden screens, which, as far as we can see, are of no use whatever. The screen prevents the door being fully opened, seriously interferes with the traffic through the doors, and forms a nasty angle with the wall of the ward, where dust will certainly accumulate. What useful purpose it serves we do not know. One turret is devoted to a bath-room and lavatory, while the other contains a W.C. (with one seat), urinal, and slop-sink. The arrangement is similar in both turrets. The circular chamber is divided into two unequal halves by a wall, and the smaller half serves as a lobby with cross ventilation, giving access to the lavatory and bath in one turret, and to the sink, urinal, and W.C. in the other. Although we said that the Scotch baronial style leant itself very admirably to sanitary purposes, we do not say that it is advisable to give a circular form to a turret devoted to sanitary purposes, and we think it was a mistake not to have the sanitary turrets of the Royal Infirmary larger, and of a different shape. *All ward offices should be placed in the turrets.* In the Royal Infirmary this has not been done, and although we have one W.C., one urinal, one sink, one bath, and two lavatory basins placed in the turrets at the ward end, and cut off by a cross ventilated lobby, we have a ward-kitchen, one sink, one lavatory basin, and one bath placed in that part of the pavilion floor which forms the ward-approach, and not cut off by any cross ventilation at all. Now all the pipes of the sanitary offices have been carefully concealed by woodwork, stonework, &c., and what becomes of them is a matter of hearsay. The soil-pipes have all three-inch ventilating-pipes going to the top of the turrets. Whether the various waste-pipes are ventilated we did not learn, but none of them have been "cut off" according to the modern fashion, but all proceed direct to the sewer. Thus the ward is placed between two sets of sanitary arrangements, and the probability seems to us very great that air blowing from the corridor past the sanitary offices in the ward-approach and through the door of the ward will occasionally have the opportunity of bringing a puff of sewer gas with it. The possibility of such an occurrence (no matter how remote the probability may appear) should not have been allowed to exist in any modern hospital. The sanitary offices in the ward-approach are, we presume, for the use of the two beds in the private ward, and these two beds, be it observed, have an allowance in these matters equal to that provided for the other fourteen beds. Private wards should not, we think, be placed in close juxtaposition to public wards, but should be arranged altogether in a distinct place, with a sufficient, but not an extravagant, allowance of sanitary offices. If the private wards had been arranged elsewhere, and if the turrets had been larger, a great economy would, we believe, have been effected. A certain number of baths and sinks might have been altogether abolished. An additional W.C. might have been placed in the turret (one is not enough for fourteen patients), and the ward kitchen might have been placed there too. Ward kitchens are almost always too big. All the cooking necessary to be done in the ward might be effected by means of a few Bunsen's burners, and it seems ridiculous in the present day to provide a spacious apartment and a kitchen range for boiling water, heating beef-tea or gruel, or, possibly, cooking an egg. A circle of gas jets, together with a sink for "washing up," and a certain amount of stowage-room and pegs for apparatus and crockery, are all that is necessary. By all means let a ward-kitchen be well thought out and carefully planned. Were we asked to design one we should certainly consult the steward of a Cunarder or a P. and O. boat, who could teach hospital architects very much as to the manner in which compactness is often conducive to cleanliness, tidiness, and convenience. Because several thousand cubic feet of space is given to a patient, it is not therefore necessary to give a proportionate amount of space to his plate, mug, and spoon. If the turrets had been larger and of a different shape access to the turret bath-room would have been easier. As it is, to get from the ward to the bath-room in the turret one has to take a circuitous course to the left, round the screen, then obliquely to the right, through two doors only 2 ft 10 in. wide, and then to the left again, and all within the space of a few feet. It must be no easy matter to carry a helpless patient to the turret bath-room.

It will be gathered that we consider the private wards should have been placed elsewhere, and that the bath-room, kitchen, and W.C. should have been omitted from the ward-approach. It does not seem to us necessary to provide a separate day-room for every ward, and we think it would have been better to have provided common day-rooms for two or three wards, and more removed from the wards, so that a complete change of air might be enjoyed by the patient.

We are almost afraid to touch upon such a burning question as whether a nurse should live close to her ward or away from it, and whether, while she is on duty, her proper course is to remain like a sentinel in the ward itself, or sit in an adjoining room and look through the window of it into the ward occasionally. Those who take the former view would not provide a sitting-room or a bedroom for a nurse in connexion with the ward. It is evident that a nurse is more likely to enjoy real rest during her hours off duty, and to breathe a purer air at such times, if her living and sleeping accommodation is provided for her at some spot remote from the ward itself. It is still almost the universal practice to build nurses' rooms adjoining the ward itself, but we very much doubt if the practice be a good one. If it is to be continued, however, the bottom panes of the nurse's window commanding the ward ought certainly not to be frosted over and rendered nearly opaque, as is the case in the Edinburgh Infirmary. We hold it to be quite as important that the patients should be able to see the nurse as that the nurse should see the patients, and if a nurse can go into a private room where she can neither see her patients nor be seen by them, and yet be considered to be "on duty," we certainly think that these rooms are an evil and not a benefit.

Of the seven rooms which open on the passage of the ward-approach, we have raised objections either to the existence or the position of six. We have now only to deal with the "doctor's room," which is a big room corresponding to the nurse's sitting-room, and contains a fireplace, &c. We do not properly understand the object of this room. There are at least twice as many of these rooms as there are resident officers, and the living apartments for these gentlemen are in George Watson's house. They are not fitted up as if they were intended for chemical or microscopical work, and it would certainly be undesirable to provide such laboratories close to the ward doors. It is not intended to see casual out-patients in, for there are special rooms for that purpose. There are thirty of these apartments in the hospital, and we are in doubt as to the necessity of devoting such an enormous amount of cubic space to a purpose which, to say the least, is not very clearly defined. It will be seen, therefore, that we consider all the apartments of the ward-approach very seriously open to criticism.

In theory, wards like those in the Edinburgh Infirmary are not intended to be ventilated through the door; in practice they must be, and during the depth of winter it may happen that the doorway will serve as by far the most important inlet for air. As this will inevitably be the case, it seems to us undesirable that the air blowing through a ward door should be allowed to pass along a passage and past the doors of rooms containing patients, sanitary apparatus, unventilated gas-lights, cooking stoves, &c. Such air is not likely to be "fresh" air. From a purely sanitary point of view this arrangement is undesirable, and from an economic point it seems still more so, for not only is the cubic space devoted to the work done in these approaches far in excess of what would be necessary were the arrangements different, but the number of fireplaces, gas-lights, &c., for lighting and warming is excessive also. Too much cubic space where it is *not needed* (and, mind, we find no fault with the amount in the ward itself) means not only a serious increase in the cost of building, but a serious increase also in the cost of cleaning, lighting, and warming. On each ward floor there are no less than eight fireplaces, and three hot-water coils (one in the approach passage and one in each turret), together with forty-eight gas jets as mentioned above. This is the allowance, be it remembered, for sixteen patients. In the larger medical pavilions there are nine fireplaces, there being four in the ward itself.

We are next going to raise the question as to whether or not it is desirable to unite every part of a "pavilion hospital" with every other part by means of a *closed* corridor. The corridors of the Royal Infirmary are glazed on both sides, and heated throughout by hot-water coils. There are twelve of these coils in the lower surgical corridor, and there are, we believe, about four miles of steam-pipe throughout the building. This arrangement is very luxurious and very comfortable no doubt, and the corridors will make a charming lounge for convalescents and others; but it is obvious that these horizontal corridors, upon which the vertical lifts and staircases open, completely do away with the grand principle of isolation. We hold that an officer making the round of a pavilion hospital should consider himself in the light of a person walking about a village, and the great aim of the architect should be to *compel* every person who passes from one ward to another to go into the *open air*. Of course the corridors should be covered, and there might very well be protection from wind, but to have them completely closed we believe to be an error. Officials would very soon get accustomed in the winter to wear warm out-door clothing when walking about the building, and convalescent patients would do the same, and we believe that it would be conducive to the health of all concerned. In such a building as the Royal Infirmary it would be an easy matter to provide a special warmed and glazed corridor, with a southern aspect, as a recreation-ground for consumptive patients in the winter. The corridors are twelve feet wide, and this appears to us to be an extravagant width. The main surgical corridors enclose over 170,000 cubic feet of space. Had the width been eight feet instead of twelve, a saving of over 50,000 cubic feet of space would have been effected; and be it remembered that the cost of a building is proportioned to the number of cubic feet contained. In order to provide healthy wards for patients, it is not necessary to give every part of the building the proportions of a palace.

The number of staircases seems to us to be excessive. There are eleven of them in the building. By placing the staircases in the pavilions, it is, of course, necessary to have a separate one for each pavilion. We think a much better plan would have been to place the staircases outside the pavilions, so that the air of one pavilion floor could not possibly drift upwards to the next. If the staircases and lifts had been placed (the latter inside the former) midway between the pavilion and communicating with *open* corridors, the isolation of the separate pavilions and of each separate floor would have been *real* instead of only apparent, as is now the case; and we believe that four staircases and four lifts would have then served the building as well as more than twice that number, which is at present necessary, and would have proved sufficient. *Sufficiency* should be the aim of hospital constructors, and we hold that to provide either more or less than a sufficiency is an error. Many of these points are by no means peculiar to the Edinburgh Royal Infirmary, and the only fault we can find with the planners of it is that they have copied what we believe to be the mistakes of their predecessors in hospital construction. At St. Thomas's, at the new Hôtel Dieu, and elsewhere, the idea seems to have been held that a hospital, in order to be wholesome, must be magnificent, even in points where magnificence is of no earthly use to anybody. In the Edinburgh Royal Infirmary the managers have avoided all wasteful ornamentation, but they have fallen into the error of giving magnificent proportions to parts of the building where size only means expense in construction and maintenance, and difficulty in cleansing.

A few words concerning the attic storey of the pavilions. This is reached by a narrow wooden staircase, and the part over the ward-approach is devoted to the sleeping accommodation of the "ward assistants." These sleep partly in cubicles and partly in separate rooms. The roofs of these attics slopes, so that the height varies, and they are heated with hot water. One of these cubicles measured 6 ft. 9 in. by 13 ft. 6 in.; they each contain therefore about 90 square feet of area, and no artificial means, as far as he could see, of renewing the air in it. There is accommodation for a great many more ward assistants than actually exist, and many of these cubicles will probably be never used as sleeping apartments, which may be considered fortunate; but why, it will be asked, was the expense of their construction ever incurred? There is a bath and w.c. in each of these attics. The one we visited was not very clean, and a damp garment was hung over the stairs to dry. It did not impress one as either an attractive or a wholesome region. Over the ward itself there are no cubicles, but merely the foul air extraction pipes and a passage for workmen.

We may now leave the pavilions, and give a brief description of other parts of the hospital. The old building of George Watson's Hospital (shaded dark in the plan) is occupied by the resident students in the eastern wing, and by the nurses in the western wing. Here is also the chapel and the kitchen. The clinical lecture theatres and the big operating theatre (marked C and O)[1] are all first-rate, being well lighted and very well contrived. The operating theatre has skylights to the north and south, and a side light facing the north. (We may have a word to say in another place concerning the operating tables and the special tables for the

[1] For plan, see p. 196.

steam spray.) The two projections from the main building marked X and Y in the plan are a student's room and a casualty-room. Running beneath all the corridors and all the pavilions is a subterranean passage, in which are the coal-cellars, and to which all the various shoots and lifts and staircases descend. The hot-water pipes travel along the ceilings of these passages, and the heated air in it has a tendency to ascend into the building. On that account it will be very necessary to attend to the purity of the air in this passage. There is a special passage leading underground to the mortuary and the pathological department, so that the dead, in their transit to the deadhouse, are as little as possible exposed to the gaze of the living. The fixing of the big hot-water pipes in the vaulted summit of this passage has rendered it just not high enough for the safety of the heads of porters of average size who may have to work in it. Beneath the southern ends of the south (medical) pavilions are day-rooms for the patients. We may notice, in passing, the existence of a dry shed for the carriages of the staff while waiting for their owners, and a lawn tennis ground for the residents. In such a huge building, occupying several acres of ground, the means of ready communication are quite necessary, and we believe that it has been arranged to place every part of the building in telephonic communication with the others. There are suitable waggons for the coals, and admirable trucks (designed by Surgeon-Major Fasson, the superintendent of the infirmary) for the dinners. These trucks have a metal lining which is filled with hot water, while the interior is occupied by specially-designed tins, and in point of fact the patients get their dinners as hot as possible, notwithstanding that the distance from kitchen to wards is rather great. The centre building (marked A on the plan) is occupied by an entrance hall, treasurer's office, board-room, &c. Here, also, are some special wards set aside for ovariotomy, and at the top of this building are the female "Lock" wards; while in the clock tower itself, reached by a stone spiral staircase, up or down which no patient could possibly be carried, is a room for examining and operating upon female patients suffering from venereal disease. This last room is an instance (and we are bound to say that such instances are not common in this building) of how matters of internal convenience have occasionally to give way to the external style of a building.

There are no separation wards in the new infirmary for contagious or infectious cases. The infirmary drains into the town sewers, and the managers are under an obligation not to discharge the sewage from infectious patients into their drains. For the present the old infirmary building is used for infectious cases, and when this building is sold some fresh arrangement will have to be made.

Besides the main building, which we have described at, we fear, a tedious length, there are certain subsidiary detached buildings which need to be mentioned. There are two entrance lodges on the north side; a house for the superintendent has been provided on the east side, facing Meadow-walk; while on the north-west side of the ground are the laundry, the boiler-house, the mortuary, and the pathological department. The laundry is not yet complete, and the boilers and heating apparatus are not yet quite out of the hands of the contractors. A huge chimney belching smoke, however, already indicates that scientific institutions are as little able to accomplish a complete combustion of fuel as are the most ignorant of mill-owners. The pathological department is very complete and well appointed. The post-mortem theatre appears to be well planned, and fitted with every convenience. We were particularly struck with the construction of the post-mortem tables. These are of slate, revolving on an iron pivot, the pivot also serving the purpose of a drain. Above each table is a circle of gas-jets for use in winter, and from the centre of this circle comes the flexible tube for the supply of water, a combination of gas-pipe and water-pipe being so arranged that one pipe *appears* to serve both purposes.

The total cost up to the present time of the buildings, site, and furniture, has been about £340,000. The total number of patients' beds is 570.

In conclusion, we have to acknowledge the great courtesy received from everyone to whom we have applied for information concerning the building which we have been describing. To Mr. Peter Bell, Surgeon-Major Fasson, and Mr. Bryce, the architect (who furnished us with a sketch-plan, and gave us much of his valuable time as well), we are especially indebted. We have, it will be observed, dealt with the subject in a purely critical spirit. Many of the points to which we have taken exception are not peculiar to the Edinburgh Royal Infirmary, but are common to most "pavilion hospitals" which exist at present. It is because we believe the pavilion hospital to be susceptible of much improvement that we have been at the pains of using the most recent of them as a means of pointing out what we believe to be the shortcomings of this class of buildings. Many of the points we have raised are no doubt fairly arguable. We have raised them in the interest of those who inhabit, build, and work in hospitals. The Edinburgh Royal Infirmary is certainly one of the finest and best hospitals in the country, but it would be a mistake to regard it as perfection, and for future hospital builders to be content with merely imitating it.

LUNACY REPORTS FOR 1879.

THE issue, of the Thirty-fourth Annual Report of the English Commissioners in Lunacy affords the best available materials for considering the proportion and distribution of lunacy in England and Wales during 1879. The total recorded number of lunatics, idiots, and persons of unsound mind in England and Wales on Jan. 1st last was 71,191, showing an increase of 1306 upon the registered number on the first day of 1879. Presuming the proportional prevalence of lunacy to be stationary, it is evident that the number of lunatics in a rapidly increasing population, like that of England, would steadily increase. It is impossible, therefore, to judge of the increase or decrease of lunacy without taking into account the proportion of lunatics to population. In the second table of the lunacy report just issued, it appears that the ratio of registered persons of unsound mind has continuously increased from 18·67 per 10,000 in 1859, to 27·94 on the 1st January last. The proportion, which was 18·67 per 10,000 on the first day of 1859, and 23·93 at the beginning of 1869, further rose to 27·77 on January 1st, 1879, while it was, as before stated, 27·94 on the first day of this year. Without attempting now to discuss how far the true increase or decrease of lunacy in England and Wales can be estimated from the recorded numbers of persons certified or returned as of unsound mind by a variety of authorities, it is well to note that the proportion of lunatics and idiots to population showed an average annual increase of 2·8 per cent. in the ten years 1859 to 1869, while in the second decade 1869–79 the annual increase in the proportion did not average more than 1·6 per cent.; the increase per cent. during 1879 did not exceed 0·6 per cent. There is a marked decline, therefore, in the rate of increase of the registered insane, which if maintained must soon turn the increasing to a decreasing rate. If it were possible to make due correction in the returns for the effect of more complete registration and report of cases of lunacy in recent years, owing partly to the tendency of public opinion in the direction of in-door instead of out-door poor-law relief, and partly to the State aid which in recent years has been given towards the cost of lunatics in asylums, it is doubtful whether the apparent increase of lunacy would not disappear. One of the most important considerations with reference to lunacy, regarded as a disease, is its distribution or varying incidence in different localities and populations. The lunacy report, however, does not afford satisfactory materials for the study of this part of the subject. It is true that tables are given showing the registered number of pauper lunatics in each of the counties of England and Wales; the reader, however, is left to calculate for himself the proportion of lunacy to population in the several counties, which is the only true measure of lunacy. It is unfortunately impossible to distribute private lunacy to the different counties, and we are therefore driven to accept the proportions of pauper lunatics as a measure of the prevalence of lunacy. We have noted that the total proportion of lunacy, private and pauper, was equal to 27·9 per 10,000 of the population in England and Wales on 1st January last. If we exclude the private lunatics we find the proportion of pauper

lunacy to be 24·9 per 10,000. We have been at the trouble to calculate this proportion of pauper lunacy in the different counties, and find the usual wide variations. London—that is, registration London—continues to show the largest proportion of lunacy, equal to 36·3 per 10,000. This excess of registered lunacy in the metropolis affords the strongest evidence that liberal provision of asylum accommodation has a marked tendency to promote the registration of lunacy. In no other part of England and Wales is the provision of asylum accommodation so proportionally large as in the metropolis; this is mainly owing to the erection of the asylums for idiots and harmless lunatics at Leavesden, Caterham, and Darenth. In England and Wales, exclusive of the metropolis, the proportion of pauper lunacy did not exceed 23·0 per 10,000, against 36·3 in London. The proportional incidence of pauper lunacy shows marked variations in the several counties; the proportion per 10,000 of the population did not exceed 13·6 and 15·6 in Durham and Stafford, whereas it ranged upwards to 35·0 in Wiltshire, 35·3 in Oxfordshire, and 37·4 in Herefordshire. We may probably return to the discussion of lunacy distribution in England and Wales, but will note in passing that, contrary to most other diseases, lunacy shows the greatest prevalence in agricultural populations, and the smallest prevalence in those counties in which the proportion of urban population is the largest. On the 1st of January last 64·7 per cent. of the pauper lunatics in England and Wales were in asylums, hospitals, and licensed houses; 25·9 per cent. were in workhouses (including the inmates of the asylums at Leavesden, Caterham, and Darenth); and the remainder, or 9·4 per cent., were residing with relatives or others. In 1859, no less than 18·2 per cent. of pauper lunatics were residing with relatives or others; since then this proportion has steadily declined. If the imbeciles at Leavesden, Caterham, and Darenth be included with the inmates of other asylums, the proportion of the insane under treatment in special institutions at the beginning of this year becomes 71·7 per cent., and the proportion retained in workhouses, which was 25·1 per cent. in 1859, is reduced to 18·9. The proportions of pauper lunatics maintained in asylums, in workhouses, and residing with relatives and others in the various counties of England and Wales, show marked variations, which want of space forbids us now to discuss. It may be pointed out, however, that only 55·0 per cent. of the pauper lunatics in Gloucestershire, and 55·9 per cent. in Nottinghamshire, were under treatment in asylums at the beginning of this year, and the proportion of lunatics residing with relatives and others was so large as 17·2 per cent. in Norfolk, 17·6 in Wiltshire, and 21·0 in Herefordshire. We shall defer to another notice a discussion of the rates of mortality prevailing among the insane during last year, but regret to find that the report just issued affords no more satisfactory materials for its discussion than previous reports. The approximate ages of the insane population and of the decedents is absolutely essential, in order to arrive at the true excess rate of mortality due to insanity. For this purpose the ages of the insane admitted to asylums in a single year are comparatively useless. We have on more than one occasion expressed our conviction of the complete futility of the information given in recent reports on so-called causes of insanity. These statements, often little better than mere guesses, are worse than useless as a guide to the scientific study of the true causes of insanity.

From a statistical point of view the Twenty-second Annual Report of the General Board of Commissioners in Lunacy for Scotland is, in many respects, superior to the report recently issued by the Commissioners for England. Not only are the tables more complete and better arranged, but in the report itself the statistics are more thoroughly discussed and turned to account. In one respect, however, we regret that the Scotch figures are as defective as those in the English report. No information is given as to the ages of the registered lunatics, or of the ages of the decedents; and without such information it is impossible to obtain completely satisfactory mortality statistics of the insane population. It may be hoped that the Scotch Commissioners may see their way to give information on this point in future reports. The most complete statistics of lunacy which have come under our notice are those somewhat recently issued by the Metropolitan Asylums Board, relating to the inmates of the asylums at Leavesden, Caterham, and Darenth during 1879. The Commissioners in Lunacy, both for England and Scotland, will do well, when their next reports are under preparation, to incorporate a few of the tables on this branch of the subject from the Leavesden and Caterham reports. It appears from the Scotch report that on the 1st January last the registered number of lunatics was 9624, showing a further increase of 238 upon the numbers at the beginning of previous years. The number of lunatics to 10,000 of the population was 25·8, against 27·9 in England and Wales. This proportion of registered lunatics has steadily increased year by year from 19·2 in 1858. In one respect the Scotch statistics of lunacy differ materially from those for England and Wales. We have shown that in England the rate of increase of lunacy is a decreasing rate; in Scotland, however, an ascending rate of increase still prevails. The increase during the five years ending 1870, compared with the preceding five years, was equal to 4·8 per cent.; while in the two succeeding quinquenniads, ending 1875 and 1880, the increase was respectively 6·5 and 8·7 per cent. The Scotch statistics bearing upon the distribution of lunacy compare most favourable with the meagre materials on this branch of the subject in the report of the Commissioners for England. In the Scotch report is given a complete and well-arranged summary of the proportional amount of pauper lunacy in each of the counties during the twenty years ending 1880. It appears that the annual average of pauper lunatics per 10,000 of the population during the last quinquenniad, 1876-80, ranged in the several counties from 6·9 and 9·6 in Selkirk and Shetland to 25·8 in Bute, 25·9 in Argyll, and 29·9 in Kinross. The difficulties, however, in the way of a useful comparison of the statistics of single counties are very properly urged in the report before us, and the statistics of two groups of counties, Highland and Lowland, are suggested for comparison and consideration. The proportion of the insane of all classes on January 1st, 1879, was equal to 31·6 per 10,000 of the population in the Highland counties, whereas it did not exceed 20·1 in the Lowland counties. This marked excess of lunacy in the Highland and more purely rural population corresponds with the result of similar comparisons in England, where, if we exclude the metropolis, we find a far greater ratio of insanity prevailing in the rural counties than in those counties in which the largest proportions of the population are urban in character. We can only on the present occasion refer to one other branch of the subject as dealt with in the Scotch report, the proportional asylum and other treatment of the pauper insane. On January 1st last, of the 7957 registered pauper lunatics, 4569, or 57·4 per cent., were in Royal and district asylums; 1229, or 15·4 per cent., in parochial asylums; 676, or 8·5 per cent., in workhouse lunatic wards; 1415, or 17·8 per cent., in private dwellings, and 68 in training schools. The main point of difference between these proportions and those prevailing in England consists in the fact that 17·8 per cent. of the pauper lunatics in Scotland were residing with relations and others, and were under no kind of control or efficient supervision, while the proportion similarly conditioned in England did not exceed 9·4 per cent. at the beginning of this year. We shall have occasion again to refer to this subject when we consider the varying results of treatment in asylums and otherwise, with reference to proportional recovery and mortality.

CHARTERHOUSE SCIENCE AND ART SCHOOL AND LITERARY INSTITUTE.—The Winter Session of this, the largest Science School in the United Kindgom, will, under the continued presidency of the Rev. J. J. Rodgers (V.C. of the London School Board), commence on Saturday, the 25th of September. During the late Session about 800 students availed themselves of the privileges afforded by this Institution, and of this number nearly 600 presented themselves for examination and were successful in obtaining no less than 140 Queen's Prizes awarded by the Science and Art Department of South Kensington. At a nominal fee instruction of a practical character is given in most of the sciences, whilst in Art, at an equally low rate, students, under the direction of four competent instructors, can be advanced in their studies. Those who aim at becoming proficient in Chemistry (Organic and Inorganic) have the opportunity of working in a well-fitted laboratory capable of holding sixty students. Aspirants for University honours can, at a small expense, be assisted in their studies. Lessons in Latin, Greek, French, German, and Music are given by well qualified teachers. Full particulars can be had of the Organising Secretary, Mr. C. Smith.

THE LANCET.

LONDON: SATURDAY, SEPTEMBER 18, 1880.

THE present condition of the Medical Service of the Royal Navy requires the immediate and careful consideration of the Admiralty, and we trust that when Lord NORTHBROOK returns from his well-earned holiday he will investigate thoroughly the causes to which its decadence has been due, and by judicious measures endeavour without delay to restore it to a state of efficiency. At the two examinations in 1879 only fifteen candidates came forward to supply somewhere about seventy vacancies, and at those held in the present year only ten presented themselves. That it is the duty of the Government to provide an adequate number of duly qualified medical officers to attend the officers and men of the Navy in sickness and war and to keep a vigilant watch over their health with a view to prevent disease will, we doubt not, be universally admitted. The question, then, is, What are the causes of the unpopularity of the Service? and what means must be adopted to render it more acceptable to the younger members of the profession? Among the principal causes which prevent candidates from coming forward, and which give rise to discontent among the officers in the Service—a discontent which reacts on the medical schools—may be mentioned the lower rates of pay and retirement than those now given in the Army; the loss of time arising from the system of compulsory half-pay when ships are paid off; the practical denial to medical officers of "cabins according to their relative rank," as laid down in the Orders in Council; and the rule requiring five years' service in the rank of Deputy before being eligible for promotion to Inspector-General of Hospitals and Fleets. To render the service popular and to attract a good class of medical men to come forward as candidates a thorough reorganisation of the Department seems necessary. The rates of pay and half-pay must be brought up to an equality with those in the Army; the advantages granted by the Orders in Council must be secured to the medical officers, and stringent rules laid down to prevent them, as at present, being evaded. Hitherto an attempt has been made to remedy the evil of compulsory half-pay by allowing four years' full pay service to count as five towards retirement; but this is at best an unsatisfactory compromise; it does not compensate the unlucky officer who has more than his fair share of half-pay, while it gives an additional boon to the fortunate men who have interest at the Admiralty. The best mode of dealing with this grievance would be to abolish the compulsory half-pay by sending the medical officer, after a reasonable period of leave, to do duty in one of the naval hospitals till his services are again required afloat. We see no reason why this should not answer in the Navy as well as it did in the Army when the regimental system was in operation. When a regiment returned from foreign service, the supernumerary medical officers were not placed on half-pay, but were sent to the General Hospital at Fort Pitt, unless their services were required elsewhere. If, however, so great an innovation does not find favour in the eyes of the Lords of the Admiralty, some plan should be devised by which the actual half-pay time of each officer might be credited to him, instead of the average of the whole service being divided equally among the lucky and unlucky. Besides these changes, it would only be just to create in the Navy a grade between the Fleet Surgeon and Deputy Inspector-General, corresponding in pay and retirement with the Brigade Surgeon in the Army; and if this were done, the age for the compulsory retirement of Fleet Surgeon and of this new rank might advantageously be made fifty-five instead of sixty, thereby giving more hope of promotion to the juniors. The rule to which we have alluded, of five years' service as Deputy Inspector-General before being eligible for promotion to the higher rank, should be abolished. It seems very unjust, and the absurdity of it was recently shown in there being no officers eligible to fill several vacancies of Inspectors-General; indeed, it became necessary to promote the present Director-General without his having ever served as an Inspector-General. No such rule exists in the Army, and we can see no reason why it should in the Navy. An officer who has risen through the junior grades, and has been selected as eligible for the appointment of Deputy Inspector-General, must surely be fit to undertake the duties of Inspector-General without going through a five years' training in the lower rank. We presume it was originally introduced as a means of saving money, but it is a very miserable economy which is effected at the expense of justice, and must naturally give rise to discontent. Lord NORTHBROOK is very capable of taking a large and liberal view of the requirements of the Service, and we have every confidence that he will do so. We would only remind him that the sooner a remedy is applied to so very unsatisfactory a state of matters, the more advantageous it will be to the Service and the more creditable to himself as a statesman.

THE influences which determine the condition of the blood-vessels, their dilatation or contraction, are of extreme importance. Current opinions of the nature of these influences have largely dominated theories of both healthy and morbid action, and every new fact regarding them is of the greatest interest to both the physiologist and the pathologist. A series of investigations by Dr. W. H. GASKELL, which have been carried on in the physiological laboratory at Cambridge, and lately described to the Royal Society, constitute an important addition to our knowledge, and furnished the subject of one of the most interesting demonstrations given at the recent meeting of the British Medical Association. Although their greatest interest is in relation to the peripheral vessels, the observations deal primarily with the states of the heart. Complex as the mechanism of cardiac action is, the apex of the frog's heart presents much more simple conditions, in that it is, so far as has been ascertained, destitute of nerves or nerve-cells. It thus presents a favourable object for the investigation of certain phenomena of vascular action. It has been hitherto believed that all inhibiting or dilating influences on both heart and vessels depend immediately on the nervous system. In accordance with this view, if the nerveless lower part of the ventricle of the frog is physiologically separated from the

upper part by a ligature, it ceases to beat, even though, by a cannula previously introduced, the frog's own blood is supplied to it. But MERONOWICZ has found that if an artificial blood solution is supplied to it, or it is stimulated by the constant current, this nerveless apex will recommence its rhythmical contractions; and FOSTER has further ascertained that the same effect is produced when the heart is supplied with the frog's own blood, but the pressure of this is increased, as by clamping the aorta. Hence, if the stimulation afforded by a mere increase in the intracardiac pressure will induce rhythmical contractions in a nerveless heart, we must regard the view that the action of the muscular walls of the vascular system depends solely upon nervous influence as at least open to reconsideration.

It has been lately ascertained that a dilute alkaline solution will re-excite contractions in the isolated and quiescent apex. This effect was ascribed to the removal of some obstruction. But the suggestive fact has been ascertained by GASKELL (employing ROY's tonometer, by which variations in the size of the cavity are recorded) that the contractions so excited are presently arrested by the heart passing into a condition of tonic spasm. The relaxation between successive beats becomes less and less, and the heart apparently stops in systole. It is not a state of tetanus—i.e., of rapidly-recurring contractions,—but apparently one of "idio-muscular" contraction or tone. If a saline solution is passed through the heart, it will frequently remain without beating, and then sometimes the alkaline solution may be observed to cause a gradual tonic contraction without any rhythmical beats. It was next found that a dilute acid solution (of lactic acid) had an action precisely opposite to that of a dilute alkaline solution. The ventricle was quickly brought to a standstill in the position of complete relaxation. The effect of neither acid nor alkali is permanent; in either case artificial blood solution is able, subsequently, to cause contraction differing in no way from the normal. The actions of the acid and alkaline solutions are not merely opposite, they are actually antagonistic. If, by means of an acid solution, the beats have been lowered in force, they are quickly restored to the normal by an alkaline solution, and *vice versâ*. Dr. GASKELL has further ascertained that certain poisons act on the heart as does the alkali, while others act as acids. Thus antiarin (the poison of the upas tree) and digitalin act as do alkalies, causing an increased tone, irrespective of contractions—a tone which ultimately renders contractions impossible. Muscarin, on the other hand, acts as the acid. Pilocarpin also acts like the acid, while atropin acts in the same manner as the alkali.

Further investigations have brought out the important fact that alkaline and acid solutions act upon the muscles of the smaller arteries in the same way as upon the cardiac muscle. The observations were made upon the mylo-hyoid muscle of the frog, after pithing, and division of the mylo-hyoid nerve, to eliminate all nervous influence. Solutions were sent through the vessels at a constant pressure, and provision made that the modification in the heart's action should have no effect on the pressure in the vessels. The lactic acid solution produced always an enlargement in the calibre of the arteries, and the flow through them was proportionately more rapid. The alkaline solution caused invariably a diminution in size, usually to absolute closure, with a corresponding obstruction to the flow through the vessels. Moreover, the same antagonism of the two solutions was found to exist for the vessels as for the heart. Although lactic acid was employed in these experiments, it was ascertained that the effect of acetic acid was exactly the same.

Hitherto, as we have said, the condition of the heart and smaller bloodvessels has been regarded as dependent solely on the influences exerted through the vaso-motor nervous system. These experiments show that local influences, the nature of the fluid surrounding the muscular fibres, also affect their condition. Their tonicity is augmented by the increased alkalinity of the fluid, is diminished by its lessened alkalinity. Functional activity is everywhere attended with vascular dilatation, by the mechanism, it has been hitherto assumed, of the vaso-motor nerves. But if the state of the muscular tissue of the vessels may be modified so largely by the fluid around them, may not the products of the activity of the organ determine, by local action, the dilatation of the vessels? Dr. GASKELL ingeniously argues that it is *à priori* probable that it may be so, from the structure of the vessels, the muscular fibres lying immediately *outside* the impermeable elastic lamina. It is in the highest degree probable that the lymph fluid of muscles is rendered less alkaline by the chemical products which result from muscular action. In the brain and pancreas the same conclusion is also probable from recent researches, and these facts suggest that it is true of all tissues. According to some investigations by KLUG, oxygen strengthens, carbonic acid lowers, the cardiac pulsations, and alkalinity promotes oxidation. It is probable, then, that throughout the whole vascular system normal tone and rhythmical action are dependent in part upon the due oxygenation and alkalinity of the fluid supplied to its muscular tissues, while, on the other hand, the tonicity cannot be maintained or the rhythmical action continued, when that fluid is overcharged with such products of tissue metamorphosis as lactic and carbonic acids.

Besides its visible pulsations, the muscular tissue of the heart varies much in its condition of tone, as these observations demonstrate. If in the normal state the relaxation between the separate contractions is nearly complete, and the cavity closed for a definite time at each contraction, then with a greater tonicity, the period of closure would be longer, the intermediate dilatation would be less complete. With less tone, the cavity would be closed for a shorter time, or incompletely closed at each contraction, and the diastolic relaxation greater. To the latter condition, long recognised theoretically in cardiac pathology, BEAU many years ago gave the inexact term of "asystolie." When the ventricle of the frog is tied, atony is produced; the alkaline blood solution gradually improves its tonicity, as tracings show, until spontaneous pulsation result.

It is unnecessary to point out how immediate and important is the application of these facts to the physiology and pathology of the whole vascular system. It is clear that many phenomena now believed to be produced by the agency of the nervous system may be really independent of it. The vaso-motor nerves exert their influence, profound and extensive, but the tissue elements which they control have also a power of independent action. To determine the relative potency and place of the two modes of vaso-mur-

cular influence, and the relation between their excitants, must be the next steps in the solution of the problems opened up by these researches. The facts already ascertained are of the highest importance and suggestiveness, and, elicited as they are with great care and by a most difficult investigation, their discovery does the highest credit to English physiology.

THE question of bogus degrees admits of facetious treatment, but it is a serious matter. And the United States will do well to take this view of it. We lately remarked with satisfaction on several indications that in America the leaders of medical education are bent on the introduction of reforms both in education and in the examinations by which it is tested. The best schools are forming themselves into an association from which all schools will be excluded which do not insist on a preliminary examination before the commencement of medical education. The period, too, over which medical education is to extend is being lengthened to something more nearly appropriate to the extent of work to be done. This action on the part of the medical teachers in the States cannot be too highly praised or too much encouraged. It is especially necessary in a country whose universities and schools are more or less private institutions, where they spring up like mushrooms, and where a charter is to be had almost for the asking, and once given cannot without much difficulty be withdrawn. There is a large and powerful party in the States who appreciate Protection as a principle. We commend to them a scheme for securing protection to the public against ignorance clothed in the garb of knowledge. Ignorance pure and simple may be left to itself. It is its own cure, and sufficiently repels by its vulgarity and its helplessness. But ignorance put hastily through the schools and diplomatised, and coming forth at the end of a year or two with all the airs of the schools, is a deadly business from which every civilised State should protect its citizens. And this we take to be the lesson which certain of the American medical teachers are trying to impress on the American Legislatures, and, failing that, on the medical profession, which must be its own protector.

The exposure of the system of bogus degrees by the able and energetic action of the proprietor and city editor of the *Philadelphia Record* ought to be of the greatest service to friends of medical education in the States. It is not creditable to the Authorities that this system has been practised for years, and openly advertised, without any effective action on the part of the State whose honour was mainly concerned. To our knowledge, it has been a matter of regret and shame to the able Minister of the United States in this country, and to the many American members of the profession who visit our shores and bring evidence that there are good medical schools and teachers in the States. Not only have degrees in Medicine—and, alas! in Divinity too—been sold, but the enterprising promoters of this trade have bought up the charters of other universities, institutes, colleges, &c., so as to do its disgraceful business on a larger scale. Anyone who doubts this should read the account of this system which is to be found in a book lately published, and containing much information, entitled "Medical Education and Practice," by HERBERT JUNIUS HARDWICKE, M.D. The following, according to this authority, was the offer of T. B. MILLER, Dean of the Philadelphia University of Medicine and Surgery, to the representatives of the *Record* who applied to him to know how they might become doctors, never having attended lectures, and of course having no diplomas. After stating the cost—100 dollars—and his ability to give a diploma entitling to practise that no man would question, and offering to put the seal of the University of Philadelphia on it, he added:—

"Yes, or you can take your choice of three charters. We have the charter of the Philadelphia Institute of Medicine and Surgery; that was the original charter. Then we have the charter of the Quaker City Business College of Arts and Sciences, which is the best of all. And two weeks ago we bought the charter of the Penn Medical University—that college up on Brown-street, near Thirteenth. They're running yet, but it is without a charter, as they sold it to us."

Taking up a large minute-book, and finding the charter of one of these institutions, and reading Sections 3 and 4, he said:—"That gives us power to confer any degree. We can confer degrees of A.B., A.M., D.D., or anything you want."

Yet, for all this, the State which has been so dishonoured by the traffic in medical degrees and university charters has been either helpless or indifferent, and the criminal has been tracked and brought to light mainly by the efforts of the editor of a Philadelphia journal. It remains now to see whether the legal authorities have the power or the will to deal with one of the greatest and most injurious frauds which can be practised on a community—the sale of degrees in medicine without exaction of guarantees of knowledge, either in the shape of proofs of education or of examination. There is one great branch of this trade, the degrees in Divinity, which if not more injurious to a community is at least more offensive, and which, alas! has had some support from purchasers in this country. One would have thought that as it takes two persons to complete a sale, the sale of degrees in Divinity would have been a scandal which the world might have been spared. The man whose business it is to hold up to admiration "*quæcunque sunt vera*," surely should keep himself from the taint of such a traffic. But even the profession of Divinity has its unworthy members. We must leave them to public judgment, only remarking that there are State reasons for objecting to "doctor factories' which do not apply to institutions for the manufacture of divines, offensive as they are.

A contemporary has treated the capture of the principal criminal in this bogus degree system with a good deal of facetiousness and humour, gently suggesting that there are some analogous processes, not to say trades, even in our country. We will not insult any diploma- or degree-granting body in this country by comparing their too easy grants of degrees and diplomas with what takes place under the system we are now commenting on. We shall, however, take an early opportunity of noticing, as we have noticed before, some parts of our British system of medical qualifications which will certainly deserve the attention of the Lord President or of Mr. MUNDELLA when they come, as we hope they soon will, to complete the work of amending the Medical Acts, which was well begun by the late Ministry.

Annotations.

"Ne quid nimis."

THE LICENCE OF THE ROYAL COLLEGE OF PHYSICIANS.

STUDENTS who commenced their career after the 25th of March, 1880, should remember that by recent changes in the regulations for the licence of the Royal College of Physicians of London, the examination is now divided into *three* parts. For the first, candidates may present themselves as soon as they are registered according to the requirements of the Medical Council, and can produce evidence of having received instruction on the subjects of that examination. The second examination, on Anatomy and Physiology, takes place after eighteen months of professional study at a recognised medical school; and the third, or final examination, on Medicine, Surgery, and Midwifery, on the completion of four years of professional study. Chemistry and Materia Medica were, until this year, subjects of the final examination; now they are subjects of a separate examination, to be passed early in the student's career, and under circumstances much more favourable to him than heretofore.

HOSPITAL ETIQUETTE AT MANCHESTER.

ONCE again we have our attention drawn, in a letter by Mr. Ewart, printed in another column, to strange doings at the Pendlebury Hospital for Sick Children. This institution, which is so admirably situated and adapted for its purpose, seems to have a Nemesis overshadowing all its work, and bringing its authorities into constant conflict with the sentiments of the profession. This time it is not a member of its own staff that is the aggrieved party, but a member of another hospital staff. The facts may be summed up thus:—A boy, suffering from stone in the bladder, is admitted into St. Mary's Hospital, Manchester, and whilst awaiting operation contracts scarlet fever. By direction of the sanitary authorities, he is transferred to the Pendlebury Hospital—the recognised institution for the reception of children suffering from fever. He is not only cured of his fever there, but also relieved of the ailment for which he had been under surgical care at St. Mary's, and this notwithstanding the assurances given on his transfer that as soon as he had recovered from the fever, he would be sent back whence he came. We need not follow our correspondent through all the stages of this business, of which he has given us a clear account; but we cannot help expressing our surprise that the director of Pendlebury Hospital should not have acted with more circumspection. So far as we can judge, no blame can reasonably be attributed to the surgeon who did operate. We should be sorry to think that any surgeon should be so imbued with the greed of operating as to snatch a chance case, which fell in his way, from a fellow-surgeon's hand, and we do not believe it was so here; for he found the case at his hospital, and it was no business of his to inquire where it came from. Yet there remains behind an unpleasant sense of sharp practice, or convenient forgetfulness, on the part of some one, for how did the Pendlebury surgeon know of the case unless he was invited to take charge of it? As a rule, of course every hospital may claim to treat every case in its entirety, without any restrictions; but, under the circumstances, we must agree with our correspondent that there has been an apparent lack of courtesy in the whole proceeding which should never be allowed to enter into dealings between hospital staffs. Let us hope that the matter has been one of misunderstanding merely, and not of wilful intent to keep a "good case," no matter how, or under what conditions, introduced, into the hospital wards. Mr. Ewart's letter calls for, and we hope will receive, a frank explanation from the responsible parties at the Pendlebury institution.

SCHOOL-BOARD SCHOOLS AND SCARLET FEVER.

IT is impossible to doubt that schools have again and again become sources of contagion for the dissemination of scarlet fever, diphtheria, and other diseases of an infectious character. This undoubted fact suggests the importance of active co-operation between Education and Sanitary authorities, with a view to minimise the unavoidable danger arising from the congregation of increasing numbers of children in our elementary schools. It is to be regretted, however, that assertions are sometimes made which cannot be supported by the inexorable logic of figures. Recently, in reporting upon a local epidemic of scarlet fever, it was asserted, in explanation, that the rate of mortality from scarlet fever in England and Wales had considerably increased since the Education Act of 1870 was passed. There is so much probability of this assertion being accepted as true, that it is worth while to examine carefully the real state of the case. During the ten years 1861–70, preceding the passing of the Education Act, the annual death-rate from scarlet fever in England and Wales averaged 98·8 per 100,000 of the population; whereas in the past nine years of the current decade the rate from this disease has not exceeded 73·1 per 100,000. It is, therefore, beyond doubt that the mortality from scarlet fever in England and Wales since the passing of the Education Act has been 26 per cent. lower than the rate which prevailed in the preceding ten years. As it is thus clear that there has been a marked decrease in the fatality of scarlet fever during the past nine years, the assertion that the supposed increase of scarlet fever mortality is due to the effect of the Education Act of 1870 naturally falls to the ground, and for present purposes it is hardly necessary to discuss the causation of the decline in the death-rate from scarlet fever in England and Wales during the past nine years. Most of the other principal zymotic diseases show a similar decline of fatality, and afford the strongest evidence of improving sanitary condition; and without attempting directly to attribute this result to the Education Act, we may safely claim that Act as a most powerful ally in the struggle for improved public health. Let us resolutely, therefore, beware of any sinister attempt to discredit that Act on account of the administrative difficulties that must inevitably arise from unrestricted school attendance at epidemic periods.

WOMEN AT THE INTERNATIONAL CONGRESS!

AS might have been expected, the determination to exclude women from the scientific meetings of the forthcoming Congress has led to hostile criticism abroad. The following semi-satirical comments appear editorially in *Le Progrès Médical* of last week:—

"Decidedly our English *confrères* are not very gallant, nor also very liberal. We can understand their not being upholders of the practice of medicine by women, and we ourselves have plainly avowed that we did not believe in a general way that this was a career for them. But, when a woman at her own risk and peril, for motives of which she is the sole judge, has thought it her duty to follow this profession, when she has gained—on like conditions to man—the title and diploma of doctor, what reasons can be advanced for refusing her the rights and privileges attached to this title and diploma? Doubtless the honourable organisers of the future International Congress of London have good ones, since by a majority of 27 votes to 19 they have closed the doors of the Congress to women doctors. They must certainly have excellent reasons, since they have extended this ostracism even to those who have already taken part in

other International Congresses. But our penetration cannot divine these reasons. Do they fear that the reputed loquacity of these ladies would cause the Congress to waste too much time? Does past experience confirm this dread, and sanction these precautions? Alas! if they wanted to exclude babblers, those inexhaustible debaters who only speak to say nothing, they must have recourse to more radical measures, and perchance the rigors of a new rule would frequently fall upon the bearded orators.

"In France—the salic land—we are less timid; the Société d'Anthropologie cordially admits women among its members, and does not bind them to silence. The English Committee of the International Congress of London, which Her Majesty the Queen of England and Empress of India has deigned to take under her high patronage, should have been able, without derogation, to show more courtesy towards the sex to which their sovereign belongs."

We have reproduced the above in its entirety, because it conveys pretty well the idea which probably prevails abroad upon the subject; but without wishing to argue the point, we would venture to point out that in England we are not accustomed to see female doctors at our medical societies yet, and—it may be the fault of our climate, or our insularity, or our conservatism—we have no desire to make what, to many of us, would be a most undesirable innovation, tending to limit free and open discussion.

THE STUDY OF OPHTHALMOLOGY AND ITS BEARINGS.

PROFESSOR HIRSCHBERG'S *Centralblatt für Augenheilkunde* for the present year opens with an address on the above subject. After a succinct but telling sketch of the history of Ophthalmology, the author goes on to say:—"Recent and more exact methods of research have placed it beyond doubt that the condition of the eyes presents us with the best clue to an early and certain diagnosis of various affections of important organs, such as the kidneys and the nervous centres, or of the whole system, as in lues and leukæmia. There being now open to us a direct view of the interior of the eye, we are enabled to recognise the existence of diffuse nephritis in cases where, from the slow development of the disease, neither the patient nor the physician suspected the presence of so grave a disorder. In many cases of miliary tuberculosis, where the indistinctness of the symptoms leaves us in doubt, this is cleared up by the discovery of tubercles in the choroid. Just as the multiplicator, as von Graefe has it, reveals the presence of the very weakest electrical current, the optic nerve, passing as it does through the unyielding scleral aperture, shows by the serous engorgement and the œdema of the papilla unmistakably the existence of increased intracranial pressure, owing, for the most part, to the growth of neoplasms within the cavity of the cranium. The geometrical arrangement of the sentient retinal elements, the cones and rods, enables very limited defects of the field of vision to be exactly defined—defects which to the experienced observer foreshadow, months and even years before, the advent of progressive paralysis. The observation of anomalies in the action of ocular muscles is frequently the first means of detecting the presence of a substantive affection of nerves. The mathematical definition of the functions of the visual organ—viz., distinctness of vision and accommodation, the latter, depending almost entirely on the age of life—reveals the very smallest deficiencies; whereas similar anomalies in other domains—as, for example, in the cutaneous or muscular sensibility—are far from being able to be determined with equal accuracy. From these few instances it will be admitted that the study of our modern ophthalmology, quite apart from its practical bearings, is one of very great pedagogic value to the student of medicine, and is well entitled to the place assigned to it in the examination for the licence to practise. As to its practical merits—its degree, that is, of therapeutic efficiency—every unprejudiced critic will admit that within the last thirty years notable progress has been made. The local treatment of severe conjunctival affections with caustics, the energetic employment of mydriatics in iritis and even keratitis, the administration of the myotic alkaloids, the mercurial treatment of specific affections of the fundus—all this has undoubtedly contributed to an improvement in the statistics of loss of sight. The operation for cataract has, by virtue of improved diagnosis and encheiresis, come to rank among the most successful performances in surgery. Glaucoma, absolutely incurable before, has, through von Graefe's immortal discovery of the powers of iridectomy, in the overwhelming majority of the cases, become curable, and altogether the scope of that operation, itself greatly simplified, has been vastly enlarged. It must, of course, not be thought that in all the cases which are theoretically curable a cure is actually achieved. The number of the blind is still very large in all civilised countries—with us, e.g., fully 1 in 1000; that is to say, there were in 1871 no less than 22,978 persons in Prussia entirely blind. From the exact statistics of the causes we infer that, according to the present potentialities of the healing art, almost 30 per cent. of the cases might have been rescued from their fate. The principal causes why they were not must be sought in the miserable circumstances of life of large masses of the people, and, above all, in the ignorance of a still greater number, in their predilection for quackery, or their supineness in seeking proper medical assistance. Hence, a vast and fruitful field for exertion lies open before the ophthalmological student."

HEALTH OF THE METROPOLITAN POLICE.

THE report of the Chief Medical Officer of Police, Mr. Timothy Holmes, for the year 1879, shows, among a strength of 10,678, 6489 cases of sickness and 59 deaths. The average number of men on the sick list was 286·7. The total number of men injured was 661, of whom 462 were injured "on duty," and 199 "not on duty." In addition, 149 men suffered from sore feet. The "chief diseases of exposure" were rheumatism (chronic and muscular), coryza, bronchitis, and tonsillitis; and from these ailments 3033 of the men suffered, the larger number being affected with coryza. "Twenty-two men," the report states, "were suspended on account of venereal disease during the year. It has been recently found necessary to send some cases of venereal disease to the Lock Hospital for treatment, on account of the want of any proper place for the treatment of young men affected with the severer forms of venereal disease, when living in stations or section houses. It is stipulated that all such men are to be seen by the chief surgeon on their discharge from hospital, in order that those who are affected with constitutional disease, or who from any other cause are judged unfit for the service, may be reported unfit. It is hoped that the necessity for sending such cases to hospital may not often arise. Though apparently unavoidable under our present system of medical attendance, it certainly looks like a provision for obviating the inconveniences which a man has brought on himself by the breach of police regulations, and to some extent neutralises the regulations whereby such men are struck off pay while unfit for duty. It is only, therefore, in the case of men who can neither be sent home nor treated with convenience in the station that a reference to the Lock Hospital should be made." Notwithstanding the liability of the men, in the pursuit of their duties, to incidental exposure to the contagion of small-pox, only 5 cases occurred in the force—an immunity due to the care given to revaccination. Of the causes of death, "consumption and 'disease of the lungs'" stand first in order of frequency, "bronchitis and pleurisy"

and "bronchitis" second and third. Of the causes of resignation and invaliding from ill-health (the "debility" of age and long service being put aside), "rheumatism, rheumatic gout, and sciatica" come first in order, "consumption and disease of the lungs" second, and "bronchitis" third. Of the duration of cases of sickness, 3130 did not exceed a week.

SIR THOMAS D. ACLAND ON HOSPITAL NURSING.

SIR THOMAS ACLAND, in his capacity of president of the Exeter Hospital, has been giving expression to his views on hospital nursing, observing that good nursing was as necessary as good treatment. He said three things were necessary—first, that medical orders be implicitly obeyed; secondly, that nurses should be trained and educated for their duty; thirdly, that there should be cordial co-operation between medical officers and the person or persons selecting and allocating the nurses. We heartily agree with Sir Thomas in these points. Sir Thomas, rebutting statements in the public press as to the element of religious controversy in this nursing question, said "deliberately, after weeks, nay, several months, of most earnest investigation, that currency had been given to most unjustifiable insinuations about the endeavours to introduce sisterhoods, to set nurses up to judge for themselves, and to put the interest of nurses before that of patients." We are not quite so clear that Sir Thomas is right here. He must be a bold man who denies, in the face of facts everywhere to be noticed, that there is a desire to introduce sisterhoods into hospitals, and many signs of an attempt to turn hospitals into ecclesiastical battle-fields — an attempt which cannot be too closely watched or too stoutly resisted.

THE ORDER OF ST. KATHERINE.

THE Queen has been graciously pleased to confer the Order of St. Katherine on one of the nurses at the Royal Victoria Hospital, Netley, and on the recommendation of Sir William Muir and Lady Superintendent Mrs. Deebles, Sister Elizabeth Wheldon has been selected for the honour. The order carries with it a pension of £30 per annum for a limited period, with an embroidered badge worn on the left arm. Sister Wheldon, in addition to long and good service at Netley, was one of the nurses chosen to accompany Mrs. Deebles to South Africa for work in the military hospitals during the Zulu war, and was commended for her zeal and efficiency in nursing and care of the sick and wounded in that campaign.

THE HOMŒOPATHIC CONGRESS.

WHEN every other body of men is having its Congress it would be hard if the Homœopathists were not to have theirs. Accordingly they have been meeting in Leeds, and have been trying to take a hopeful view of their position in the world. To do them justice we must say that the principal speakers spoke with a modesty and a certain vagueness which contrast favourably with the old and intolerant style of the master. The principal object of the President, Dr. Yeldham, in his address, was to magnify the element of certainty in medicine. This is a sentiment so proper that we can all accept it. But the question is, What is certain? The homœopathic doctrine has been so roughly handled lately by leading homœopaths, that we must consider it, to say the least, very uncertain. We have been lately told by the leading homœopathist in London that the principle of cure is sometimes *similia similibus*, and sometimes *contraria contrariis*, whereas the master said that no future experience would qualify the principle of *similia* as the one and only principle of cure. Recent homœopathic practice raises still stronger doubts about the certainty of the other thing that the master insisted on as established — viz., the virtue of infinitesimal doses. Every now and again good, simple homœopaths, of which a few still survive, are shocked by the rebellion of unworthy disciples. Formerly homœopathy had only to contend with the disadvantage of divorce from scientific medicine; now it has to bear the fate of a divided house. At the dinner in the evening Dr. Yeldham tried to speak comfortably to his brethren on the subject of the slow progress of homœopathy. He thought great reforms were always slow; but considering the reasonableness of the age, and the fast rate at which truth and falsehood are exposed, it is certainly becoming a serious argument against homœopathy that eighty years after its promulgation it is as much without scientific recognition as it was two generations back. About the same time that homœopathy was announced Jenner announced the efficacy of vaccination. Let anybody contrast the fate of the two announcements: the one accepted by every civilised country, and by every medical school in the world: the other, without recognition in any European University, even in Germany, the land of its origin.

QUEEN'S COLLEGE, GALWAY.

THE report of the President of this College for the Session 1879–80 proves that its prospects are encouraging, the students attending lectures during that period having amounted to 180, or 13 in excess of those entered in the previous session. In order to estimate justly the condition and progress of the College from the number of students on the rolls, it must not be forgotten that daily attendance is rigidly enforced in all the departments of the Queen's Colleges. In the Queen's College, Galway, besides the daily roll-call, class examinations are frequently held; for example, in the class of Anatomical Demonstrations a daily examination is held, and in Physiology once a week, and no credit is given for attendance when deficient preparation for lecture or deficient study of the subject is shown by the student. So that the class certificate not merely proves the payment of a fee, and the entry of a name on the class-roll, but is a guarantee of continuous study of the subject on the part of the student during the entire session. It appears that there is an urgent necessity for enlarged accommodation in the Anatomical Department of the Medical School, the Lecture Theatre and the Practical Room being inconveniently crowded.

WICKERSHEIMER'S METHOD OF PRESERVING ANATOMICAL PREPARATIONS AND WHOLE BODIES.

DR. HOTZ states in a recent number of the *Chicago Medical Journal* that Dr. Wickersheimer, prosector in the Anatomical Institute at the University of Berlin, has invented a new preserving fluid, by means of which it is possible to preserve any organic bodies, either plants or animals, so perfectly that they retain their original form, colour, and texture. The inventor at first secured a patent for his invention, but in the interest of science he relinquished it. The fluid in question is thus prepared: 100 grains of alum, 25 grains of cooking salt, 12 grains of saltpetre, 60 grains of potash, and 10 grains of arsenious acid, are dissolved in 3000 parts of boiling water. The solution is cooled and filtered. To every 10 litres of this neutral colourless and odourless fluid there are added 4 litres of glycerine and 1 litre of methyl-alcohol. For dry preservation the preparations are immersed in the fluid from six to twelve days, according to their size, and then dried in the air. Organs like the lungs and intestines are filled with the fluid before immersion, and blown up before drying. Small animals and portions of bodies which are to be preserved in their natural colours are

simply kept immersed in the fluid. For embalming, the body is injected and laid in the fluid for several days. It is then taken out, rubbed off, and dried and wrapped in linen or oil-cloth saturated with the fluid, and encased in air-tight receptacles. If bodies are to be temporarily embalmed for scientific purposes, the injection of 1½ litres (for children) to 5 litres (for adults) is sufficient. Even after years the cut surface of the muscles shows the appearance of those of a fresh corpse. Bodies treated in this way have not the least odour.

IRISH UNIVERSITY EDUCATION.

AT the approaching meeting of Convocation of the Queen's University in Ireland, a motion will be brought forward to the effect that without reference to demands for endowed sectarian universities or colleges, Dublin University should occupy in relation to any university the same position as the Queen's University. Also, that existing non-sectarian colleges—namely, Trinity College, Dublin, and the three Queen's Colleges—should be affiliated colleges in a non-sectarian teaching university; that by additional endowments they should have similar advantages as regards professorships, residences, fellowships, and exhibitions; and that a deputation be appointed to submit the views of Convocation to the Prime Minister and Chief Secretary for Ireland.

THE MIGRATION OF OVULES.

MM. DUVAL and WIET have investigated the mechanism by which the ovules pass from the ovary to the Fallopian tube, in order to ascertain whether ciliary action does not play a part in the phenomenon. They have found that in female frogs, during the sexual period, the peritoneum is covered by an epithelium furnished with vibratile cilia, in active movement. The cilia are absent at other times, and in the male frog. A similar epithelium was found on the peritoneum of cats during the rutting period. M. Sinéty has found vibratile cilia on tumours removed from the pelvis of women immediately after the catamenial period; and therefore it may be assumed that a similar mechanism is also in operation in the human species.

"THE PEOPLE'S DISPENSARY."

THERE is great danger of the people being victimised by dispensaries of one sort or another. We put them on their guard. Wherever medicine and attendance are offered at very low charges let them consider whether they are likely to get anything worth having. At Liverpool police-court the stipendiary magistrate has just committed for trial John Oldenham, of the "People's Dispensary," for falsely pretending to be a duly qualified medical practitioner, and for giving false certificates of death. It was urged for the defence that the defendant acted under a qualified practitioner; but the practitioner in question denied the statement.

CYSTICERCAL EMBRYOS.

M. POINCARÉ lately described some curious parasites in beef, and he has recently found similar organisms accompanying cysticerci in measly pork. They are extremely numerous, and their number is in inverse proportion to the cysticerci, which suggests that the two are really successive stages of the same individuals. They are of an ovoid form, and consist of a sac containing only a mass of granular protoplasm. This sac is capable of spontaneous movements, by which its form may be considerably modified. Most of them are furnished with vibratile cilia, which are more numerous and longer towards the extremities. Some were free, others were contained within muscular fibres. Regarding them as phases of development of cysticerci, M. Poincaré believes that they may also give rise to tapeworms, but has not yet proved this by experiment.

INQUIRY AT CORK FEVER HOSPITAL.

A PUBLIC INQUIRY has just closed in Cork Fever Hospital in reference to a case of scarlet fever in a pay ward of the hospital, in the treatment of which the use of a small dose of pilocarpin subcutaneously was adopted. The case appears to be exciting considerable interest amongst the profession in Ireland. We reserve a fuller notice of the case, which we have received from our Cork correspondent, until the decision of the committee is made known, and the statements and explanations of the medical men concerned shall be in our possession.

CABUL.

PRIOR to the complete evacuation of Cabul by Sir Donald Stewart's army, the sick of the force, European and native, were encamped in the Balla Hissar on the 26th July, and were inspected by the General the same evening. The convoy, which consisted of 414 Europeans, 445 Sepoys, and 129 native followers, started for India on the 27th, and was under the command of Major Kingsley, 67th Regt. Surgeons Kirkpatrick and Langridge accompanied the party.

CONSIDERABLE difference of opinion appears to exist in the minds of those interested in the prosperity of the Hastings and St. Leonards Infirmary as to the desirability of changing the site of the building. A general committee appointed by the governors to consider the report of the Site Committee had endorsed the recommendation by the latter body that negotiations should be entered into for the purchase of what would seem to be an eligible plot of ground called St. John's Villa, the cost of which was stated to be £10,000. At the half-yearly meeting of the governors of the infirmary, held on the 7th inst., a resolution was carried in harmony with this recommendation.

AMONGST several liberal legacies to medical and other charities, Mrs. Sally Halls Bradshaw, the widow of Dr. William Woods Bradshaw, F.R.C.S. Eng., late Mayor of Reading, has bequeathed to the Royal College of Physicians the sum of £1000, and a similar amount to the Royal College of Surgeons of England, both described as "for a special purpose;" to the Royal Berkshire Hospital, £1000; to the Winchester County Hospital, £1000; to the Westminster Hospital, £1000; to the Reading Dispensary, £500; to the Royal Hospital for Incurables, £1000. The will is sworn under £35,000.

DR. G. E. NICHOLAS, of Church-row, Wandsworth, whose second son was unfortunately drowned at Ipswich on the 28th ult., was, we learn, last week nearly experiencing another bereavement of a similar kind. Dr. Nicholas's third daughter fell into the river Wandle, which runs at the bottom of his garden, and but for the generous bravery of his next-door neighbour, Mr. Cooke, chemist, who unhesitatingly jumped into the stream, and succeeded in bringing her to the shore, the young lady must have suffered the melancholy fate of her brother.

FRANCESCO RIZZOLI, Professor of Surgery at the University of Bologna, who died recently, has bequeathed his vast wealth, estimated at nearly 6,000,000 francs, to the Municipality of Bologna, with the stipulation that it should be devoted to the completion and maintenance of the Model Orthopædic Hospital on his estate at San Michele, in Bosco, an institution on which he had, during his lifetime, expended a sum of 2,000,000 francs.

WE regret to learn that cholera, in a severe form, has broken out at Fort Abizai, near Peshawur. The native regiment in garrison there reported thirty cases the second week in August. We trust the epidemic will be confined to the Fort, and not spread generally in the Peshawur Valley, through which our troops are now marching on their return from Cabul to India.

WE have been asked to announce that the engagement of foreign medical officers for the Netherland Indian Military Service is discontinued.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Jarrow (estimated population 22,500.) Mr. John Spears' report on the health of Jarrow during the year 1879 contains, perhaps, the most important and assuring information which has yet been published by a medical officer of health on the efficacy of the action which may be taken for preventing the spread of disease by a sanitary authority who have obtained power for the compulsory notification of infectious diseases in their district, even when they do not possess a hospital. This is the case with the Jarrow sanitary authority. They possess a local Act of Parliament giving them exceptional powers for securing information regarding the existence of, and for dealing with, infectious sickness, but, curiously (putting the cart before the horse, so to speak), have no infectious-disease hospital. Nevertheless, Mr. Spears shows that the power for the compulsory notification of disease may be turned to excellent account, though what ought to be a primary condition of granting such power is wanting. Mr. Spears' observations on this subject and on a remarkable outbreak of true typhus which occurred in Jarrow last year, we shall follow in great part textually.

Compulsory registration of disease, he remarks, is a measure which of necessity must form the groundwork of all satisfactory provision for the stamping out of such disease, and has been in operation in Jarrow during the year. "In its practical application it has been found, it may truly be said, perfect, and has left really nothing to be desired. If one tried hard to find fault one might say that in a few cases the certificates have not come in at quite so early a date in the course of the case reported upon as was desirable; but on the other hand, much more frequently it has happened that I have received unofficial notice of doubtful cases before a certain diagnosis in regard to them could be arrived at. In one solitary case only, and I have watched for such occurrences, could the suspicion arise that the patient's friends had not sent for medical aid through fear of the case being reported, and in this one case it was merely a suspicion, denied by the parties concerned. So far, again, from this provision bringing the medical officer of health, and the medical practitioners into conflict, as had been predicted by some, it has assisted in the formation of a close and pleasant intimacy between us, and a mutual confidence, which was freely illustrated during the year, when, on the occurrence of many cases presenting unusual and somewhat contradictory clinical features, I was permitted without a single objection to visit such cases, and take clinical observations, often twice a day, and for days continuously. The medical practitioners of the town are in one accord as to the efficacy and practicability of the measure, and most of them are now its warm supporters, whilst from private individuals I have not heard one single objection, unless a slight demur, only expressed privately, to an unusually late visit I paid on one occasion to a house for the first time, could be called such. The smoothness of its working, and the practicability of this measure are, in short, established by the experience of Jarrow; provided, as has been pointed out to me by my professional brethren, the medical officer of health is not engaged in private practice, and is reasonably conciliatory in his dealings. Then, as to its usefulness. On this point I can speak with greatest decision in respect of the behaviour of a recent typhus fever outbreak. It may be said that typhoid fever has diminished, that the epidemic of scarlet fever, when we came to be informed of every case as it arose, soon disappeared, whilst in neighbouring districts it continued almost unabated; but this I pass over, it may be due to other causes, while the experience with regard to typhus fever is, I take it, decisive."

The infection of this last-named disease had existed in the district, in no inconsiderable degree, throughout the year, and yet there was nothing approaching an epidemic outburst. "Could we," writes Mr. Spears, "have in a district where typhus fever has not appeared for years, and amongst a low-class, closely packed, often under-fed population, always throughout a whole year, five or six different centres of typhus infection, and yet no outburst, unless it were for the prompt precautionary measures that were applied? It is at least most unlikely. In all human probability the infection would have assumed, under such conditions, its usual form of an ill-defined epidemic wave, difficult to trace in its individual progress, and not have remained, as I shall presently show it did, a mere dribbling stream, kept within a very narrow and always perfectly obvious channel. Moreover, the efficacy of prompt precautionary measures was demonstrated in numerous individual cases almost with the accuracy of a scientific experiment. I will mention one instance of many. For seven weeks the typhus infection existed in the house of one J——, in Shakespeare-street. With one exception, the family all suffered, the sufferers being at last removed by the parish authorities. During this time all but one neighbour was rigidly excluded. That neighbour, and that one only, took the disease, and subsequently her husband and all her husband's family suffered.[1] Had it not been for our strict supervision (I visited the house myself almost always twice a day, and the inspector only a little less often) many neighbours would have been constantly passing to and fro, each with a more than equal chance, for other precautions would have been likewise neglected, of infection. Such was throughout the experience. When persons insisted on seeing a sick or dying relative, or upon attending a funeral party in an infected house, they caught the disease; when a lover visited surreptitiously his sick mistress (four such instances occurred) he paid a like penalty; when a neighbour was allowed to nurse a patient, or lay out a corpse, she suffered; whenever such and similar indiscretions were allowed, and it was very difficult, sometimes impossible, to prevent them, the disease spread; when they were prevented it disappeared. In short, throughout, it may be said, we retained an effectual grasp upon the disease; when even a finger was relaxed, we could see, as it were by its effects, the infection oozing away; when the grasp tightened, it was stayed.

"The question will here naturally suggest itself to a stranger, and it may be noticed parenthetically, why was not a hospital provided, and the dozen or so sufferers, since you never appear to have had more than that number at one time, removed, and all this trouble and waste of life put a stop to? The question may well be asked.

"But could we have done what we did, and, without actually stamping it out (we had not the necessary machinery for that), have kept the disease so completely under control, without our system of registration of disease? Assuredly, no! The disease would almost certainly have become epidemic; we should only have been dealing with one centre of infection, whilst others unknown to us were arising. And for this reason I think I may justly say that if our Private Act were destroyed at this moment the benefits that have already accrued from it are such that the ratepayers would have been more than repaid the cost of obtaining and administering it.

"Typhus fever, a disease that for years had been absent from this district, made its appearance in February of the year under report. Its origin is left in uncertainty, although to discover it no pains were spared. The grandfather of the first infected family had lately come to the house from Sunderland, from a part where the disease had to a moderate extent prevailed, and this was the most likely source of the contagion that could be suggested. This part of the investigation was rendered somewhat more difficult by the fact that, especially in the early cases, the clinical features of the

[1] One of the sufferers, however, went to stay a night at the house of a friend, owing to a quarrel at home, before complete recovery, and infected persons there.

disease were so equivocal that at first it was looked upon as typhoid fever, but this feature of the epidemic, together with other technical points of much interest, may more properly be left for a scientific paper. What most concerns the sanitary authority to know is that the disease spread, it could clearly and unmistakably be proved, in almost every case, by contagion from person to person, or, in a few cases only, by infected clothing; and, also, that ill-ventilated and crowded houses suffered far beyond all proportion of what may be termed the balance of probability of their infection. Persons living in crowded rooms appear to have been peculiarly susceptible to the reception of the fever poison; and, when the disease appeared in a crowded house, not only did all, or nearly all, the inmates invariably suffer, but such houses formed centres of infection from which it was almost impossible to prevent the disease from spreading. Both these facts, of so much significance to the authority—the mode of spread of this disease, and the peculiar facility which overcrowded dwellings offer to its propagation—constitute no new experience, but have been observed before in nearly every epidemic of typhus fever. Still, they are, as I have said, of so much practical importance, that it is well to insist upon them."

These points are brought out in a table annexed to the report, in the form of a chronological diagram, and from which one example may be given. The disease started in an overcrowded house in High-street, nine persons in this house suffered, and from it seven others, or twenty-seven persons, were directly infected. From only one of these houses did the disease spread to any extent, and this was likewise an overcrowded house situated in Pearson-place, in which most of the family suffered; from it certainly nine, probably ten, families were infected, and eighteen persons. One only of these houses was overcrowded, and here again all the family suffered, and the disease spread. Such throughout was the experience, as the table shows.

"The information conveyed in this diagram," Dr. Spears observes, "may be looked upon as reliable. Where any reasonable doubt existed as to the source of the infection, such cases have not, of course, been included; but, as I have said, we had great and unusual facilities for watching the progress of the disease, and, indeed, we often knew before the disease broke out in a family that it was likely to appear there, and the source whence it would come. The sanitary authority had, in fact, provided us with most effectual means, by the system of compulsory registration of disease, of watching the ravages of infection, but unfortunately they had not provided us with the means of staying its progress. I must confess I sometimes felt in the position of an observer, watching the carrying out of painful pathological experiments, as useless as preventable, on living animals. We were, as the table will show, generally successful as regards most of the centres of infection, in stopping the progress of the disease by such precautionary measures as we could enforce in the sufferers' houses, and certainly there was no relaxation in our efforts in that direction; but the one thing needed to put an effectual end to all the disease and death and misery that we were coolly watching—hospital accommodation—the sanitary authority could not, or would not, provide. That question was still, as it had been for five years, *under consideration*."

THE BELFAST WORKHOUSE.

Dr. McCabe's report on the State of the Belfast Workhouse has been issued as a Parliamentary paper. The Local Government Board (Ireland), when formed, prided itself in following the administrative example in sanitary matters of its bigger brother, the English Board. It would appear that the Irish Board, when in its larval state of existence, had qualified itself much as the English Board had done. Neither had seen anything incongruous in undertaking the public health administration of a kingdom, after having proved itself unqualified to manage the somewhat simpler duty of properly supervising the sanitary administration of a workhouse. The Belfast workhouse, according to Dr. McCabe's report, shows that Local Government officials in Ireland have quite equalled the Local Government officials here in the sanitary mal-administration of workhouses, and no doubt they feel highly gratified in having emulated so successfully in this branch of their administrative duties their English brother. The Belfast workhouse would have been worthy of a place in THE LANCET's first report on Workhouses.

SANITARY CONDITION OF CLONAKILTY.

This town appears to be in a bad condition in reference to sanitary matters and the absence of a proper supply of water. The Town Commissioners last week unanimously adopted a resolution that a memorial should be forwarded to the Local Government Board, requesting that the sanitary authority be transferred from the Board of Guardians to the Commissioners, as the Guardians were neglecting their duties.

At a recent meeting of the Hackney Board of Guardians some amusement was excited by a drug account. The clerk was called upon to read it, but he asked to be exempted from the task, on the ground that whilst the list kept to Latin, he could manage to decipher it, but when it went off, as was the case at intervals, into his native tongue, he was completely at fault. Further amusement was caused by Dr. Millar discovering in the list an item of a gallon of brandy sandwiched between 28lb. of zinc ointment and some tincture of squills.

A case of proceedings for adulteration is reported from the Wolverhampton police-court, in which the stipendiary magistrate decided that it must be dismissed, because the county analyst, certifying to the quality of the asserted adulterated article, coffee, had described it as consisting "practically" of chicory. It was objected to this certificate that it did not state the quantity of chicory, and the magistrate held that it was not sufficient evidence of adulteration.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

35th week.—Notwithstanding the recent high temperature, the rate of urban mortality and of diarrhœa fatality showed a slight decline in the week ending Sept. 4th. In twenty of the largest English towns, estimated to contain in the middle of this year seven and a half millions of persons, or nearly one-third of the entire population of England and Wales, 4984 births and 3534 deaths were registered. The births were 201 below, whilst the deaths exceeded by 259, the average weekly numbers during 1879. The deaths showed a decline of 71 from the steadily increasing numbers in recent weeks, and were equal to an annual rate of 24·6 per 1000; in the nine preceding weeks the rate rose from 18·9 to 25·1. The lowest death-rates in the twenty towns in the week under notice were 19·4 in Oldham, 19·5 in Plymouth, 20·8 in London, and 21·7 in Bristol. The rates in the other towns ranged upwards to 34·4 in Liverpool, 34·6 in Nottingham, 35·1 in Salford, 35·3 in Norwich, 37·6 in Sunderland, and 38·2 in Leicester.

The deaths referred to the seven principal zymotic diseases in the twenty towns, which had steadily increased in the twelve preceding weeks (under the influence of summer diarrhœa) from 406 to 1239, declined to 1120 in the week ending Sept. 4th. Of these, 853 resulted from diarrhœa, 93 from scarlet fever, 70 from whooping-cough, and 51 from fever, principally enteric. The annual death-rate from these seven diseases averaged 7·8 per 1000 in the twenty towns, and ranged upwards from 4·2 and 4·9 in Plymouth and Brighton, to 17·4 and 19·3 in Salford and Leicester. Scarlet fever showed the largest proportional fatality in Norwich and Sunderland, and diphtheria caused 2 deaths both in Portsmouth and Birmingham, and 10 in London. The deaths referred to enteric fever showed a marked excess in Portsmouth and Plymouth. Small-pox caused 5 more deaths in London, but not one in any of the nineteen large provincial towns.

The fatal cases of diarrhœa in the twenty towns, which had steadily increased in the eleven preceding weeks from 51 to 958, declined to 853. The annual death-rate from diarrhœa averaged 5·9 per 1000 in the twenty towns; it did not exceed 3·3 in London, whereas it was equal to 8·5 in the nineteen provincial towns. Among the twenty towns the death-rate from diarrhœa in the week ending September 4th ranged from 2·1 and 2·9 in Plymouth and Brighton to 13·9 in Hull, 14·1 in Salford, and 18·1 in Leicester.

The deaths referred to diseases of the respiratory organs in London, which had been 167 and 124 in the two preceding weeks, rose again to 152, and exceeded the corrected weekly average by 6; these included 79 from bronchitis and 43 from pneumonia. The annual death-rate from diseases of

this class was equal to 2·2 in London and to 3·5 in Liverpool.

36th week.—The recent high temperature caused an increase in the rate of urban mortality, which was higher last week than it has been since the middle of February last. In twenty of the largest English towns, 4962 births and 3643 deaths were registered last week. The births were 223 below, whereas the deaths exceeded by no less than 368, the average weekly numbers during 1879. The deaths showed an increase of 109 upon those returned in the previous week, and were equal to an annual rate of 25·4 per 1000, against 25·1 and 24·6 in the two preceding weeks. During the ten weeks ending the 11th inst. the death-rate in these twenty towns averaged 23·1 per 1000, against 24·7 and 18·1 in the corresponding periods of 1878 and 1879. The lowest death-rates in the twenty towns last week were 19·6 in Bristol, 19·8 in London, 23·5 in Birmingham, and 23·7 in Plymouth. The rates in the other towns ranged upwards to 35·8 in Sunderland, 38·5 in Wolverhampton, 38·6 in Liverpool, 38·6 in Leicester, and the highest rate was 39·0 in Salford. The zymotic death-rate (mainly the result of infantile diarrhœa), showed a marked excess in each of the five last-mentioned towns.

The deaths referred to the seven principal zymotic diseases in the twenty towns, which had been 1239 and 1120 in the two preceding weeks, rose again to 1190 last week. Of these, 917 resulted from diarrhœa, 111 from scarlet fever, and 67 from other forms of fever, principally enteric or typhoid. The annual death-rate from these seven diseases averaged 8·3 per 1000 in the twenty towns, and ranged upwards from 4·8 and 6·4 in London and Bristol, to 21·7 and 22·7 in Leicester and Salford. Scarlet fever, the deaths from which were more numerous than in recent weeks, showed the largest proportional fatality in Norwich, Salford, and Sunderland. The deaths referred to fever, principally enteric, in the twenty towns, which had been 40, 49, and 51 in the three preceding weeks, further rose to 67 last week, a higher number than in any previous week this year; only 18 occurred in London, whereas 49 were returned in the nineteen provincial towns, having an aggregate population only slightly larger than that of the metropolis. The fatality of fever showed the largest proportional excess last week in Plymouth, Portsmouth, and Sheffield. Small-pox caused 5 more deaths in London, but not one in any of the nineteen large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals have steadily declined from 200 to to 104 during the eight weeks ending last Saturday; 13 new cases of small-pox were admitted to these hospitals during last week, against 26 and 7 in the two previous weeks. The Highgate Small-Pox Hospital contained 9 patients on Saturday last.

The fatal cases of diarrhœa in the twenty towns, which had been 958 and 853 in the two previous weeks, rose again to 917 last week, and were equal to an annual rate of 6·4 per 1000; in London it did not exceed 3·2, while it averaged 9·4 in the nineteen provincial towns. Among the twenty towns the death-rate from diarrhœa last week ranged from 3·2 and 3·9 in London and Bristol, to 18·5 and 19·7 in Salford and Leicester. During the four weeks ending last Saturday diarrhœa fatality in Leicester was unprecedentedly great, even for that town, and was equal to an annual rate of 18·9 per 1000.

The deaths referred to diseases of the respiratory organs in London, which had been 124 and 152 in the two preceding weeks, declined again to 124 last week, and were 18 below the corrected weekly average; 68 resulted from bronchitis, and 38 from pneumonia. The annual death-rate from lung diseases was equal to 1·8 per 1000 in London, to 5·7 in Liverpool, and 2·8 in Salford.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a quarter persons, the annual death-rate last week averaged 18·2 per 1000, against 18·4 and 19·3 in the two preceding weeks; this rate was no less than 7·2 per 1000 below the average rate in the twenty large English towns. The rates in the eight Scotch towns ranged from 13·4 and 13·6 in Dundee and Aberdeen, to 23·3 and 33·8 in Paisley and Leith. The fatal cases of the seven principal zymotic diseases in the eight towns was 129, against 123 and 130 in the two preceding weeks; they included 63 from diarrhœa, 18 from scarlet fever, 16 from diphtheria, 15 from fever, 13 from whooping-cough, 4 from measles, and not one from small-pox. The annual death-rate from those seven diseases averaged 5·2 per 1000 in the eight towns, against 8·3 in the large English towns; the excess in the English towns was mainly due to the far greater fatality of infantile diarrhœa. The zymotic death-rate in the Scotch towns ranged last week from 0·0 and 3·4 in Perth and Dundee, to 6·8 and 8·8 in Edinburgh and Leith. The fatal cases of diarrhœa in the eight towns, which had been 63 and 65 in the two previous weeks, were again 63 last week, and were equal to an annual rate of but 2·5 per 1000, while in the twenty English towns the diarrhœa death-rate averaged no less than 6·4. The largest proportional fatality of diarrhœa in the Scotch towns occurred in Aberdeen, where however the rate did not exceed 3·5 per 1000. It is stated that for the purpose of these Scotch weekly returns deaths from "enteritis and other bowel diseases are grouped under the heading diarrhœa"; this deliberate misclassification is to be regretted. It is also noted that "croup, laryngismus stridulus, and certain cases of disease of the windpipe" are returned under the heading of diphtheria. Such irregularities of classification detract much from the value of the Scotch weekly returns for comparative purposes. During last week, for instance, 16 fatal cases of diphtheria are reported in the eight Scotch towns, against 15 in the twenty English towns, with a population six times as numerous. If any large proportion of these so-called fatal cases of diphtheria were really due to croup, or laryngismus stridulus, the return conveys a mischievously false impression. The 15 deaths referred to fever showed an increase upon recent weekly numbers, and included 7 in Glasgow, and 4 in Edinburgh. Of the 18 fatal cases of scarlet fever 8 were returned in Edinburgh, 4 in Leith, and 5 in Glasgow. The deaths attributed to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy) were 60 last week in the eight Scotch towns, against 55 and 65 in the two preceding weeks; the annual death-rate from these diseases was equal to 2·4 per 1000 against 1·5 in London.

HEALTH OF DUBLIN.

The death-rate in Dublin continues excessive. The annual death-rate in the city, which had been equal to 37·8 and 35·5 in the two preceding weeks, showed but a slight further decline last week to 34·7. During the first ten weeks of the current quarter the death-rate in the city has averaged no less than 33·6 per 1000, against 21·7 in London, and 18·3 in Edinburgh. The 209 deaths in Dublin last week included 61, or more than 29 per cent., which were referred to the seven principal zymotic diseases, exceeding by one the number in the previous week; 32 resulted from diarrhœa, 8 from scarlet fever, 8 from whooping-cough, 7 from fever, 5 from measles, 1 from diphtheria, and not one from small-pox. The annual death-rate from these seven diseases was equal to 10·1 per 1000 in Dublin, while it did not exceed 4·8 in London, and 6·8 in Edinburgh. The fatal cases of diarrhœa in Dublin, which had been 36 and 29 in the two previous weeks, rose again to 32 last week, and were equal to an annual rate of 5·3 per 1000, against 3·2 in London. The deaths from scarlet fever showed a decline of 7 from those in the previous week, whereas the number of those referred to measles and whooping-cough varied but slightly. The 7 fatal cases of fever exceeded the number returned in any of the six preceding weeks. Infant mortality was greater in Dublin last week than in any previous week this year.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

THE METROPOLITAN COMMON LODGING-HOUSES.

The report of the Chief Commissioner of the Metropolitan Police for the year 1879 supplies the following particulars as to the lodging-houses under the supervision of that force, and the occurrence of infectious and contagious diseases in them during the year. At the close of the year there were open within the metropolitan area 1220 registered common lodging-houses, accommodating 24,296 lodgers. The number of cases of infectious and contagious sickness which occurred in them was only 27, as compared with 55 in the previous year—namely, 10 of small-pox, 1 of typhus fever, 2 of scarlet fever, 4 of enteric fever, 1 of typhoid fever, 4 of "fever," and 5 of measles. Twelve cases of itch were also reported.

The deaths taking place in the lodging-houses numbered

74. In every instance an inquest was held, the result showing, as in former years, that the deaths were caused by "privation, exposure, &c." The Chief Commissioner, with regard to cases of sickness requiring removal, remarks on the prompt attention shown by the parish authorities "as heretofore," and observes that "the police had experienced the same kind and courteous attention at the hands of the medical officers as had previously been shown." He expresses also his approval of the systematic and satisfactory way in which the police have maintained their supervision over the houses. It appears that a common lodging-house is in course of erection at Poplar, to provide accommodation for 428 lodgers, and which is being built expressly for the purpose, and will give very superior accommodation, including hot and cold water-supply to the lavatory. No lodging-house has hitherto been constructed or arranged for so large a number of inmates; and none before, it would seem, has sought to emulate in any form the artisan's "model dwellings." The Chief Commissioner anticipates that the new lodging-house will prove a great boon to the working population of Poplar.

BUREAU OF PUBLIC HEALTH IN CANADA.

At the first annual meeting of the newly-elected Medical Council of Ontario, held on July 13th, 1880, Dr. Grant proposed "That, in order to keep pace with the scientific progress of the age, and give greater evidence of an earnest desire to promote sanitary measures, this Council is of opinion that a Central Bureau of Health should be established at the capital under the control of the Federal Government." The motion, along with other resolutions setting forth the importance of public health, was carried unanimously. Thus onward moves the world.

CHOLERA IN RUSSIA.

A short time ago we referred to a reported outbreak of cholera on the Volga, at Saratoff. As the news then reached us it appeared as if a series of cases of accidental poisoning were in question, but fuller information described the malady as having broken out widely among the troops in camp near the town, and afterwards having spread to the inhabitants of the town. Further news describes also a considerable outbreak of choleraic disease among troops encamped in Orel, in Central Russia, as many as 700 soldiers having been struck down with the malady. There the outbreak was assigned to the intense heat of the weather and to the badness of the water in use in the camp. We must wait for clearer information before the nature of this reported cholera can be described and the circumstances which gave rise to it.

According to the annual report of the Commissioner of Police of the Metropolis, the increase of the metropolis during 1879 comprised 21,589 new houses, forming 401 new streets and two new squares, of a total length of 71 miles and 758 yards. This makes the length of new streets added to the metropolis and handed over to the police protection during the last ten years 383 miles and 758 yards.

The *Isle of Man Times* contradicts a rumour that "black fever" has been prevalent in the island, which, our contemporary states, was never in a more healthy condition than it is at present.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following special notice to candidates as to the payment of fees for the first and second professional examinations for the Fellowship has been issued:—

"All candidates presenting themselves for the first time, whether at the first or at the second Professional Examination for the diploma of Fellow, will be subject to the payment of fees, in accordance with the provisions of the following bye-law of the College, and all candidates who shall hereafter be rejected at either of these examinations will also be subject to the conditions of the said bye-law.

"Every candidate for the diploma of Fellow shall pay the following fees—that is to say, prior to his first and every subsequent admission to the first or Anatomical and Physiological Examination: (*a*) If a Member, a fee of five guineas, which shall be retained in either case, whether he pass or fail to pass his examination. (*b*) If not a Member, a fee of ten guineas, which shall be retained if he pass, and of which five guineas shall be returned if he fail to pass his examination. Prior to his first and every subsequent admission to the second Professional Examination—(*c*) If a Member, a fee of ten guineas over and above all charges for stamps. Such fee shall be retained whether he pass or fail to pass such examination; but the charges for stamps shall be returned if he fail to pass his examination. (*d*) If not a Member, a fee of twenty guineas over and above all charges for stamps. Such fee and the charges for stamps shall be retained if he pass; but ten guineas, part of such fee and the said charges for stamps, shall be returned if he fail to pass his examination. Provided always that no candidate for the diploma of Fellow shall be required before admission to examination or otherwise to pay altogether more than thirty guineas over and above the charges for stamps, and that the moneys paid by each candidate and retained as aforesaid shall be treated as the fee payable and paid by such candidate on admittance to the diploma of Fellow."

THE SERVICES.

MEDICAL OFFICERS AT KANDAHAR.

The following officers of the Army Medical Department were on duty at Kandahar, and with General Burrows' force prior to the disaster at Khuski Nakhud:—

At Kandahar: Deputy Surgeon-General J. O'Nial, Principal Medical Officer; Surgeon-Major B. T. Giraud in charge 2–7th Fusiliers; Surgeon-Majors J. F. Beattie, W. R. G. Hinds, and Surgeon G. MacNeece, with the Base General Hospital; Surgeon-Major H. Waghorn, and Surgeon J. Findlay, with the Field Hospital; Surgeon J. Macnamara, in charge C–2nd R.A.; Surgeon E. W. Kelsall, in charge 5–11th R.A.

With General Burrows: Surgeon-Major C. H. Harvey, in charge E–B R.H.A. (reported at Kandahar); Surgeon-Major J. D. Edge and Surgeon E. A. H. Rose, with the Field Hospital (missing—not yet reported); Surgeon-Major A. F. Preston, in charge 66th Regiment (reached Kandahar severely wounded).

At Khelat-i-Ghilzai: Surgeon-Major J. W. Jackson, in charge Field Hospital.

Medical officers of the Indian Medical Department:—

At Kandahar: Surgeon-Major J. Arnott, 19th N.I.; Surgeon A. K. Stewart, Poonah Horse; Surgeon R. Mason, and G. H. Earle, Base Native Hospital (Dr. Earle reported to have reached Kandahar); Surgeon E. Tully, Civil Surgeon.

With General Burrows: Surgeon H. Dane, 1st N.I.; Surgeon G. E. E. Burroughs, 3rd Scinde Horse; Surgeon A. F. Strut, 3rd Light Cavalry; Surgeon W. R. Kirtaker, 30th N.I. (Drs. Dane and Burroughs have been reported safe at Kandahar).

At Khelat-i-Ghilzai: Surgeon-Major E. Morton.

MEDICAL OFFICERS FOR THE BOMBAY BRIGADE ORDERED TO AFGHANISTAN.

The following medical officers of the Indian army have been ordered for service with the Bombay Brigade detailed for Afghanistan:—Surgeon-Majors Beatty and Davidson, Surgeons Macrury, Clarkson, Parker, Chanmer, Hatch, Monks, Damania, and Faulkener. Surgeons Ward and Dempsey are ordered from Ruk and Sehwan to Kandahar for duty.

Deputy Surgeon-General R. H. Perkins, Indian Medical Department, has been appointed principal medical officer 1st Division Northern Afghanistan Field Force, *vice* Deputy Surgeon-General H. B. Hassard, invalided to India.

Surgeon Williamson was appointed to the staff of General Sir Frederick Roberts at Cabul prior to the departure of the division for Kandahar, *vice* Surgeon Owen, transferred to the staff of Sir Donald Stewart.

ADMIRALTY.—The following appointments have been made:—Staff-Surgeon R. G. Bird and Surgeon G. J. Fogerty to the *Caryafort;* Surgeon M. O'C. McSwiney to the *Revenge;* Surgeon W. J. Vollatti to the *Rambler*, when

commissioned; Surgeon William Brown to Plymouth Hospital; Surgeon William Pearson, M.D., to the Royal Marine Artillery.

Correspondence.

"Audi alteram partem."

THE IMMEDIATE TREATMENT OF STRICTURE OF THE URETHRA.

To the Editor of THE LANCET.

SIR,—Absence from England prevented my attending the meeting of the British Medical Association at Cambridge, or I should have availed myself of the opportunity of taking part in the discussion on Sir Henry Thompson's paper on stricture, and could have given such testimony in favour of the immediate treatment as would have satisfied the most sceptical of the value of the operation, and of its security and success.

I never have replied to Mr. Teevan's criticisms, and I never intend to do so, simply from the fact that his experience of the operation being limited (as he informed me in a letter some time since) to four cases, I consider he is perfectly incompetent to form any opinion as to the value of the operation or its results. Mr. Wood, however, stated that he had seen *several fatal cases*, and I therefore, on my return to London, wrote to that gentleman asking for the number and the particulars of the cases he alluded to. Mr. Wood, in his reply, informed me that the deaths, *two* in number, occurred in the practice of his colleagues at King's College Hospital, and so far as he could remember they were both operated upon by the late Mr. Partridge. In one Mr. Wood could not recollect any particulars, but in the other he remembers that the patient was the subject of albuminous urine, and correctly adds, "This, of course, was hardly a proper case for any operation of the kind."

I therefore venture to affirm that, considering the large number of operations that have been, and continue to be, performed by surgeons at home and abroad, the fact of only two deaths having occurred, one of which, it is quite clear, should never have been operated upon, speaks volumes in favour of the immediate plan and its eminently satisfactory results. In conclusion I may add, that I am as strongly in favour of the operation as I ever was, and that I have this day operated with the most perfect success on an unpromising and difficult case; at the same time I warn those who are deficient in the manipulative skill required for the passage of the dilator to refrain from using an instrument with which they are practically unacquainted.

Very faithfully yours,

Savile-row, Sept. 14th, 1880. BARNARD HOLT.

"NEW INSTRUMENT FOR CLEFT PALATE."

To the Editor of THE LANCET.

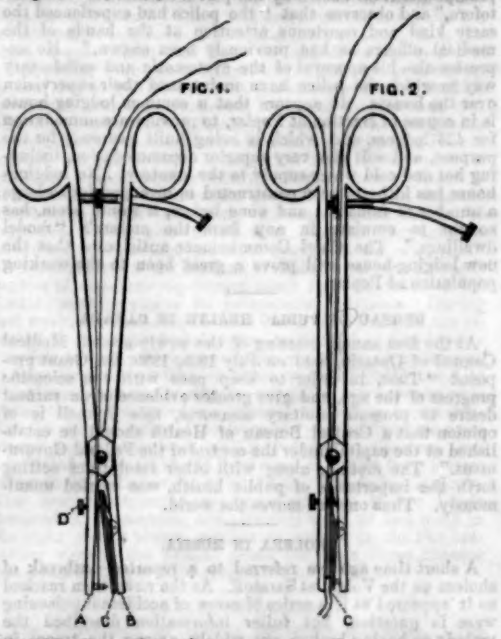
SIR,—Would you favour me with a small space in your journal to make a few remarks concerning the instrument referred to by Messrs. O'Niell and Thompson, in their note of the 7th August?

As stated therein, they constructed an instrument for me more than three years ago for the same purpose and on the same principle as that described by Dr. Woakes, but the invention dates back still further. I have yet in my possession a similar instrument that I roughly constructed myself in 1872, about the time the idea first occurred to me.

I do not accuse Dr. Woakes of having had any knowledge of my invention previous to his introducing his instrument to the profession—first, because there is no published account of mine, although one of them was exhibited in the Museum at the annual meeting of the British Medical Association in 1877; and, secondly, because I feel convinced his would have been divested of some of its present imperfections had he previously had a glimpse at mine.

The woodcuts give a fair idea of the general appearance of the instrument; and a brief description will at once show the identity of principle in both, and the advantages of the older arrangement.

As seen in the figures, it is a dressing, or scissors-shaped, forceps I have used; and I think it will be at once admitted



that this form gives the operator much more command over the instrument than he could obtain with a spring forceps. The blades, A and B, Fig. 1, are slit up, so that each forms a needle-holder. The needle may be of any length, according to the part to be operated on, but has its eye near the centre, and has a small notch near its point. In Fig. 1, the instrument is seen ready for operation; on closing it, the notch in the needle allows the blade, B, to grasp it firmly, and on again disconnecting the handle the needle is released from A, or, in other words, it has passed from one blade to the other.

The advantages I claim for my instrument are:—First, the shape already adverted to; secondly, the needle is held in both blades by spring pressure, thereby obviating the necessity for a needle perforated or tubular at the base, which of course implies extra thickness; thirdly, by far the most important feature in my instrument is a very simple appliance to cause the tissue operated on to be well passed up on the needle before its point enters the catch on the opposite blade.

If Dr. Woakes has tried his instrument, I am sure he has not unfrequently found that a portion of the tissue is sometimes caught in the second blade of the forceps, as well as the needle; indeed, I have found it to obtain even where extra trouble was taken to have the needle thoroughly sharp.

To prevent such an unpleasant complication, I have introduced a sort of miniature blade between the other two, which somewhat resembles a flute key; as the instrument is closed the thumbscrew, D, impinges on the upper extremity of this blade, and tilts up the other extremity, which has a perforation sufficiently large to admit of the needle and thread passing freely through. Its action will be better understood by a reference to Fig. 2.

I am, Sir, faithfully yours,

N. FURLONG, M.R.I.A., &c.

Lymington, Enniscorthy, Sept. 7th, 1880.

*** It is but justice to Mr. Furlong to state that a communication of similar purport to the above, but which was unfortunately mislaid, was received from him soon after the appearance in our columns of Dr. Woakes's paper.—ED. L.

HOSPITAL ETIQUETTE.

To the Editor of THE LANCET.

SIR,—On the 27th of May, 1880, a little boy was admitted into St. Mary's Hospital, Manchester, under Dr. Lloyd Roberts, suffering from stone in the bladder, and was transferred to me for operation. On the 2nd June symptoms of scarlet fever showed themselves. Information was at once sent to the Municipal Sanitary Authorities, by whose order the child was removed on the following day to the fever wards of the Children's Hospital at Pendlebury, the place appointed for the reception of those children suffering from infectious fevers who have to be accommodated at the public expense. When Dr. Mackenzie, the out-door medical officer at the Pendlebury Hospital, called at St. Mary's, to arrange for the boy's removal, he was informed by the house-surgeon, Dr. Walter, that upon his recovery he expected the boy to be returned to St. Mary's for operation; moreover, Dr. Walter called upon Dr. Ashby, the physician under whose care the boy was placed at Pendlebury, to tell him about the case, and to ask that it might be returned in due course. As a result of these interviews, Dr. Walter was satisfied that the boy would be returned, and so expressed himself to me. In order, however, that there might be no mistake, Dr. Lloyd Roberts made it his business on two separate occasions to see Dr. Ashby personally in reference to this matter, and he too received assurances that the patient would be sent back. You may judge of my surprise when I learnt last week that Mr. Thomas Jones (until the last few days surgeon to the Pendlebury Hospital) had operated on the boy a fortnight before, and of my indignation when I learnt that from the first the Pendlebury staff never meant the boy to return to St. Mary's—"at least not with the stone in his bladder."

Dr. Borchardt, the senior physician, admits, although informed of the request to have the case returned, that he said the case must be accepted without any restrictions, but adds that he was unaware that the child was sent in by order of the Corporation, otherwise he should have been returned. Dr. Borchardt, however, did not see that this decision was communicated to St. Mary's, neither did he take the trouble to ascertain through what channel the child was sent in, though it was not likely that a scarlet fever case from St. Mary's would come through any other source than the Corporation. I must own, too, that I cannot see how this question in any way affects the ethics of the case. Dr. Ashby admits, I believe, that he did not protest against Dr. Borchardt's decision, and certainly he did not inform Dr. Lloyd Roberts of it, but, on the contrary, gave him further assurance that the case would be returned, and now defends himself by saying that the operation was performed without his knowledge, during his absence of a week from Manchester, and before he calculated upon its being done.

Mr. Thomas Jones says he knew nothing about any request from St. Mary's that the case might be returned, although he admits that he knew the boy went into St. Mary's to be operated upon, and that only the accident of catching scarlet fever accounted for his being in the Pendlebury Hospital at all, and Mr. Jones contends that he was quite justified in operating upon the case.

Such conduct as this on the part of a hospital staff, which I can only designate as ungenerous, discourteous, and fatal to all inter-hospital good feeling, ought, I think, to be brought before the notice of the profession.

I remain, Sir, yours faithfully,

J. H. EWART,
Surgeon to St. Mary's Hospital.

Manchester, Sept. 8th, 1880.

WESTMINSTER HOSPITAL: A CORRECTION.

To the Editor of THE LANCET.

SIR,—In your last impression you refer to a "Westminster Hospital School of Anatomy, Physiology, and Operative Surgery." Allow me to state that the only school connected with the Westminster Hospital is the Westminster Hospital Medical School.—I am, Sir, your obedient servant,

A. PEARCE GOULD,
Sub-Dean of Westminster Hospital Medical School.

Sept. 13th, 1880.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Commons, on the 3rd inst., Mr. O'Connor Power gave notice of a question for Monday, referring to an article in a medical journal on the administration of the law relating to public health in Ireland, and inquiring what measures the Government propose to take for enforcing the Public Health (Ireland) Act; but on Monday the House did not sit, and on Tuesday the question was not upon the paper.

On the 4th inst., petitions for redress of grievances were received from the following officers of the East Indian army medical department:—Surgeon-Major William Henry Kirton, Surgeon-Major Thomas Miller, Surgeon-Major George Alder Watson, Surgeon-Major Alfred Eteson, and Surgeon-Major James Howard Thornton.

On the 8th inst., just previous to the prorogation, Sir H. D. Wolff asked the Marquis of Hartington what decision had been come to with regard to the chargeability upon the rates of London, Portsmouth, and other towns of military and other lunatics brought home from India. Lord Hartington replied that the correspondence with the Indian Government on the subject was concluded. The decision of the India Office was that the matter was one which rather affected the War Office. However, he should be glad if the hon. member would see the correspondence, and before next Session he would consider whether it could be laid upon the table of the House.

Obituary.

WILLIAM O'CONNOR, M.D. &c.

WE have to record the death of Dr. William O'Connor, senior physician to the Royal Free Hospital, which took place on the 3rd inst., at his residence in Upper Montagu-street, Montagu-square, W. He had been in practice in this metropolis for close upon forty years, during twenty-five years of which he was an active member of the staff of the institution above mentioned. He was known principally for his treatment of stomach and neuralgic affections, and for his success in the management of the diseases of children.

Dr. O'Connor was descended from an ancient Kerry family, remarkable for the great number of members whom it has afforded to our profession, including several of his brothers, one of whom, Dr. Maurice J. O'Connor, is still in practice in London. The deceased was a direct lineal descendant of the celebrated Bernard O'Connor, M.D., who died in 1698, and who is historically noted for his treatise "Evangelium Medici," and his accurate diagnosis in the case of the Duchess of Bedzevil, sister of the King of Poland, to whom he was physician.

Of the three surviving sons of the deceased, one, Arthur O'Connor, is M.P. for Queen's County; another occupies an official position; and the third, Bernard O'Connor, M.D., M.R.C.P. Lond., physician to the Westminster General Dispensary in Gerrard-street, Soho, is in consulting practice in Brook-street, Grosvenor-square. It is a curious fact that the only possessors of the name "O'Connor" who have figured on the roll of the Royal College of Physicians during the last three hundred years should bear the same Christian name—the one the last-named son, and the other the physician to the Polish king already referred to.

EDWARD AMPHLETT, M.A., M.B., CANTAB., F.R.C.S. ENG.

THE death of Mr. Amphlett, Assistant Surgeon and Pathologist to Charing-cross Hospital, Assistant Surgeon to the Central London Ophthalmic Hospital, and Clinical Assistant at Moorfields, occurred on September 9th, at his residence in Weymouth-street. Mr. Amphlett sprang on his father's side from an old Worcestershire family and was the son of a well-known member of the profession practising in Birmingham, and a nephew of Sir Richard Amphlett, of Wychbold Hall, near Droitwich, late Lord Justice of Appeal; whilst on his mother's side he was nearly related to the late Dr. Male, a name of note in the history of

Medical Jurisprudence. Born in the year 1848, and educated for the sea, he served as a midshipman in the Royal Navy for several years till invalided out on account of asthma, which was the cause of so much suffering to him throughout his life. Whilst in her Majesty's service Mr. Amphlett saw a great deal of different parts of the world, and throughout his life retained a strong attachment for nautical matters, in which he took a keen scientific interest, as shown by his adhesion as surgeon to the ranks of the Naval Artillery Volunteers, with whom he recently went a cruise on board H.M.S. *Esk*. Nothing indeed ever afforded him greater delight than meeting with an old sea comrade and messmate.

On leaving the Navy he determined to enter the medical profession, and having graduated at Cambridge through the mathematical tripos, he came up to Guy's Hospital, where he held all the posts open to a student, and having taken his Bachelor of Medicine degree at Cambridge and the Fellowship at the College of Surgeons in a brilliant manner, was finally appointed assistant surgeon to Charing-cross Hospital. From this time Mr. Amphlett devoted himself with much assiduity to the practice of his profession, and particularly to eye diseases, for the special study of which he attended the Vienna School for some months; he lectured also to the St. John Ambulance classes, and recently to those of the University Extension Scheme.

His promising career was cut short in a most untoward manner on Thursday morning, Sept. 9th. The deceased had been suffering with unusual severity from asthma, which was aggravated by exceptionally heavy out-patient work and severe mental distress, and after a broken night's rest he was found by his servant to be extremely ill. His neighbour, Dr. Murrell, was instantly with him, followed shortly by Dr. Colcott Fox, and later by some of his colleagues. Mr. Amphlett was found to be under the influence of a large dose of morphia and chloral, and rapidly passed into a state of profound stupor, with contracted pupils and great lividity and coldness of the surface. Every possible remedy was tried, such as emetics, without effect; forcible rousings and cold douchings, with subsequent stimulation of the body surface with brandy, towels, and hot-water bottles, strong enemata of coffee, the interrupted current, and nitrite of amyl. Artificial respiration carried out for about an hour raised for a time false hopes, and the injection of sulphate of atropia (one fortieth of a grain), followed by a second after carefully watching the effect of the first, caused the gradual dilatation of the pupils; but all efforts proved useless, and he died in about two hours. Dr. Murrell found post mortem that the body was generally healthy, excepting that the lungs were markedly emphysematous and loaded with serous fluid, and the right side of the heart dilated.

By Mr. Amphlett's death the profession loses a young member of more than ordinary promise; for, inheriting ability from both sides of his family, he was known amongst his professional brethren and an unusually wide circle of acquaintance to be possessed of considerable intellectual vigour. Harassed by ill health and impatient of delay in his profession, he was often seen under disadvantageous circumstances; but those intimately acquainted with him knew Edward Amphlett to be a warm-hearted and steadfast friend, a man of the strictest honour, and when not depressed by illness a most agreeable and entertaining companion, replete with information on a great variety of subjects, and the possessor of abilities of a high order. Mr. Amphlett was a distinguished Freemason, and the Past-Master of several important lodges.

DEPUTY INSPECTOR-GENERAL JOHN STIRLING, M.D., M.R.C.P., L.R.C.S. EDIN.

WE much regret to record the death of Deputy-Inspector-General John Stirling. He was born in London in the year 1816. His father before him was a surgeon in the Royal Navy, but he retired early and practised many years in Halifax, Nova Scotia. Dr. John Stirling when a student was distinguished for diligence and devotion to his profession. He was educated at the Royal Infirmary, Edinburgh, and afterwards held for some time the post of house-surgeon. He was then appointed resident medical officer to the Lying-in Hospital, where he studied midwifery and diseases of women, under the late Sir James Simpson. In 1840 he entered the Royal Navy as assistant surgeon, and went out with the Niger Expedition, and in consequence of his experience in this quarter of the globe he was again sent out in 1845 to the coast of Africa on exploring service. He afterwards served on the Mediteranean Station, and was present at the blockade of the Piræus. In 1850 he was sent to the south-east coast of America, and in 1852 was appointed surgeon to H.M.S. *Fury*. The cholera was then raging at Balpk, and the disease attacked a large fleet of transports. In the emergency Dr. Stirling volunteered his services, and by his devotion and courage won the admiration of both officers and men. During the siege of Sebastopol he served on board the *Queen*. He was subsequently staff surgeon to the Naval Hospital at the Cape of Good Hope, and his last appointment was to the Plymouth Hospital. In 1870 he was raised to the rank of Deputy-Inspector-General of Hospitals and Fleets.

Dr. Stirling was an able surgeon, and his kind and generous nature gained the esteem of all who knew him. He died at Southsea on August 30th, 1880.

J. C. HIRSCHFELD, M.B., A.M., OF BANFF.

THE death of this gentleman, on the 7th inst., took place under peculiarly melancholy circumstances. On the day mentioned Dr. Hirschfeld, accompanied, amongst others, by his little son and a skilled seaman, embarked in his pleasure-boat for a sail along the coast. A pleasant run was made to Portsoy, where the party landed and stayed a few minutes. Soon after putting off again, a squall struck the boat; she capsized and sank, and the doctor, his son, and the seaman were drowned. The following sketch of the deceased's career is from the *Banff Journal*:—

"Dr. Hirschfeld was only thirty-three years of age. A man of remarkable strength and activity, he was an expert swimmer, and, unencumbered, might have kept himself afloat for a long time, or even swam to the shore. Born at Trieste, he was the only son of Mr. Philip Charles Hirschfeld, now of the Isle of Man, and who has become familiar in Banffshire society in recent years through his periodical visits to members of his family resident in the county. Dr. Hirschfeld was educated at Edinburgh High School and University. He graduated M.B., C.M., in 1869, and was also a licentiate of the Royal College of Surgeons. During the course of his medical studies he acted for some time, first as house-surgeon, and afterwards as physician to the Royal Infirmary, Edinburgh. On taking his degree he proceeded to Germany, and as a member of the British Surgical Ambulance took a part in the Franco-Prussian War during 1870–71. He was in service before Metz, and at the investment of Paris, and always volunteered to go to the front. While with the Prussian Army he performed some notable surgical operations. Returning home he found his first professional employment at Banff in the end of 1871, when he was assumed as a partner by Dr. Manson. During the nine years of his residence in Banff, Dr. Hirschfeld gained many friends, and was universally respected. He married, six years ago, Jane Elizabeth, daughter of the late William Chalmers, manager of the Northern Insurance Company, at Aberdeen. They had but one child, the bright boy of three years who was lost along with his father."

A correspondent writes of the late Dr. Hirschfeld:—"He was an ornament to his profession. I knew him intimately, and can say that he was one of the best of men. His skill as an operator was great. His heart was in his work, and he was likely to come to the front rank in the growing combat with disease."

JAMES SIMPSON, M.D. ABERD.

DR. SIMPSON was born in Aberdeen, and educated at Mr. Rattray's, the Grammar School, and King's and Marischal Colleges. He became Demonstrator of Anatomy in the University of Aberdeen, and soon afterwards was elected house-physician to the Royal Infirmary. At the end of his curriculum he graduated M.D. with highest honours, receiving the Murray Gold Medal as the most distinguished student of his year. He was at once appointed Assistant Professor of Anatomy, an office which he held for a year. He then settled in practice in his native town, and conducted private classes for the instruction of medical students. Being desirous of more active life, Dr. Simpson turned his thoughts to the Indian Medical Service, in his examination for which he obtained the highest number of marks amongst fifty-two competitors. It was whilst preparing for this exa-

mination that he was seized with the illness from which he never thoroughly recovered. This was regarded by Sir Joseph Fayrer and Professor Maclean as an acute attack of malarial fever, contracted by exposure all night in an open boat, stranded on a mud-bank in Southampton water. When slightly recovered, he obtained two months' sick leave, though he was under special orders by telegraph to leave for India. Returning to Aberdeen, he was married on the 24th ult. to a daughter of Mr. Smith of Nigg. At Glasgow, on his way south, after his marriage, feeling still unwell, he consulted Dr. Gemmell, in the absence of Professor Gairdner. Before he could comply with the advice given him to return home at once symptoms of embolism of the femoral artery came on. He was, however, able to reach Aberdeen, where he expired on the 10th inst., at the early age of twenty-seven years.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Sept. 2nd:—

Harral, Charles Henry, Kirkgate, Leeds.
Head, Philip Alexander Dewar, Clapton.
Hepburn, William Alexander, Coxhoe, Durham.
Morgan, William Pierce, Dowlais, Glamorganshire.
Smith, John, Commercial-road, E.
Watson, Archibald, Paris.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Ernest Hodson, University College; John Joseph Farnker, Guy's Hospital; Richard Hamilton Cowan, London Hospital.

Passed their examination and received certificates to practise on Sept. 9th:—

Braganza, Bellarmin Moscardi, Bombay.
Ford, Lewis Frederic, Highgate.
Northcott, Arthur, Albert-street, N.W.
Rodway, Edwin Augustus, Taunton, Somerset.

Passed the Primary Professional Examination on the same day:—

Ashley Bird and Thos. Ruell Atkinson, St. Bartholomew's Hospital; John Henry Robinson, St. Mary's Hospital; Thos. Ricketts Moore, Charing-cross Hospital; Chas. Henry Duff, Herbert Edward Deane, and Edward Davis, Middlesex Hospital; James Prytherch James, St. Thomas's Hospital; George Toussaint Girdler, Westminster Hospital.

THE death, by suicide, is announced of Mr. Robert Hughes, M.R.C.S. Eng., of Woodbridge, Suffolk.

A GRAND BAZAAR, in aid of the funds of the Sick Children's Hospital, Brighton, is to be held in the Dome and the Corn Exchange.

MR. JOSHUA JOSEPH BIRD POPJOY, L.R.C.P. Lond., M.R.C.S. Eng., has been placed on the Commission of the Peace for Accrington.

THE salary of Mr. P. Cowen, M.R.C.S.Eng., medical officer for the Upper Holloway West District of the Islington Union, has been increased from £60 to £80 per annum.

THE LIBRARY of the Royal College of Surgeons, which has been closed for cleansing, will be re-opened on Friday, the 1st of October, and the Museum on the following Monday.

MR. W. H. HAYDEN, M.R.C.S. Eng., who, for the third time, fills the office of Mayor of High Wycombe, Bucks, has been placed on the Commission of the Peace for the borough.

SIR JAMES PAGET, Bart., will take the chair at the annual dinner of the Old Students of St. Bartholomew's Hospital, on Friday, October 1st, in the Grand Hall of the Hospital.

THE Registrar of Killishannig, Mallow (says the *Western Morning News*) reports the death of Cornelius M'C——, at 111 years of age, and says the age is well authenticated, it being well known in the family that he was born in the year in which his father took a lease of a farm, and that was in 1769.

POISONING BY SULPHURIC ACID.—Last week, at Newtownards, a boy aged four years got access to some sulphuric acid, and swallowed about a quarter of a wineglassful. Medical aid was obtained, but all treatment was unavailing, and the child died the same day.

Dr. FAUSSETT, having resigned from ill-health the appointment of medical officer of the Clontarf and Howth Dispensary District, the dispensary committee have recommended that he should receive the full retiring allowance to which he is entitled after forty-three years' service. The committee have also expressed their regret at the cause assigned for his resignation, and their appreciation of the value of his services during the long period that he has held the position.

PRESENTATION.—Last week Mr. J. B. Brereton, L.K.Q.C.P.I., was presented with a library clock, and a valuable case of instruments, by the members of the "Church of England Mutual Improvement Society," in "grateful acknowledgment, not only of his professional services, but also of the assistance rendered by him in the institution of the Evening Classes of the Society, and in the promotion of other efforts for the intellectual, moral, and spiritual benefit of the parishioners generally."

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

ANNINSON, J., M.D., M.R.C.S.E., has been appointed an Honorary Medical Officer to the Preston and County of Lancaster Royal Infirmary, vice W. B. Anninson, M.D., resigned.

ANNINSON, W. B., M.D., M.R.C.S.E., has been appointed Consulting Honorary Medical Officer to the Preston and County of Lancaster Royal Infirmary.

ARCHER, R. S., A.B., M.B., M.Ch., has been appointed Honorary Visiting Physician to the Netherfield Institution for Infectious Diseases, Liverpool.

BALLANCE, C. A., L.R.C.P., M.R.C.S.E., L.S.A.L., has been appointed House-Surgeon to St. Thomas's Hospital.

BRIGGS, H., M.B., M.R.C.S.E., has been appointed Senior House-Surgeon to the Stanley Hospital, Liverpool.

BUTLER, H. P., M.R.C.S.E., L.R.C.P., has been appointed House-Physician to St. Thomas's Hospital.

COX, W. A., M.R.C.S.E., L.S.A.L., L.M., has been appointed Medical Officer to the Kensington and Chelsea District Schools at Banstead, Surrey.

DAVIES, J., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Tregynon District of the Newtown and Llanidloes Union.

DUNBAR, A., M.B., C.M., has been appointed Honorary Visiting Physician to the Netherfield Institution for Infectious Diseases, Liverpool.

ETHERIDGE, C., M.R.C.S.E. &c., has been appointed Admiralty Surgeon and Agent, vice Williams, retired.

FIRTH, R. H., M.R.C.S.E., L.R.C.P., has been appointed House-Surgeon to the Blackburn and East Lancashire Infirmary, vice Wilkins, resigned.

GREVES, E. H., M.B., has been appointed Demonstrator of Anatomy in the Liverpool Royal Infirmary School of Medicine, vice H. Briggs, M.B., resigned.

HAINES, A. H., M.R.C.S.E., L.S.A.L., has been reappointed, for one year, Medical Officer of Health for the Port of Wisbeach.

HAMMOND, T., L.R.C.P.L., M.R.C.S.E., L.S.A.L., has been appointed House-Surgeon to the Halifax Infirmary, vice R. Scott, M.D., C.M., resigned.

HATTON, G. S., M.B., M.S., M.R.C.S.E., L.S.A.L., has been appointed House-Physician to St. Thomas's Hospital.

HAYWARD, J. W., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Whitstable District of the Blean Union.

KER, Miss A. J. S., M.D., L.M., L.K.Q.C.P.I., has been elected Assistant Resident Medical Officer to the Children's Hospital, Birmingham, vice L. A. Middleton, resigned.

LAWFORD, J. B., M.D., M.R.C.S.E., L.R.C.P., has been appointed Assistant House-Physician to St. Thomas's Hospital.

LUNN, J. R., L.R.C.P., M.R.C.S.E., L.S.A.L., has been appointed House-Surgeon to St. Thomas's Hospital.

LYNCH, F. E., L.R.C.S.I., L.K.Q.C.P.I., has been appointed Assistant Medical Officer to the Lambeth Infirmary, vice G. A. Hamerton, M.D., resigned.

MACDONALD, K. H., M.D., has been appointed Surgeon to the Prison, Cupar, Fife.

MACPHERSON, A., M.B., has been appointed Junior House-Surgeon to the Stanley Hospital, Liverpool.

MICKLEY, A. G., M.B., L.R.C.P.L., M.R.C.S.E., has been appointed Resident Medical Officer at the Workhouse of the Islington Union.

MURRAY, W., M.B., C.M., has been appointed Medical Officer to Parkfield Collieries, near Bristol, and District Surgeon to Midland Railway Friendly Society, vice C. M. Heim, resigned.

NEWSHOLME, A., M.R.C.S.E., L.S.A.L., has been appointed Resident Accoucheur to St. Thomas's Hospital.

PARETTE, J., L.R.C.P.Ed., L.S.A.L., L.M., L.R.C.S.Ed., F.C., has been appointed Junior Medical Officer to the Exeter Friendly Societies' Medical Association.

PARKER, W. R., B.A., M.B., M.R.C.S.E., has been appointed Resident Medical Officer to the Netherfield Institution for Infectious Diseases, Liverpool.

REID, J., M.D., M.B., C.M., has been appointed Medical Officer to the Fifth District of the Fulham Union, vice M. A. Gleeson, resigned.

RICHARDSON, C. B., M.R.C.S.E., L.R.C.P., has been appointed Assistant House-Surgeon to St. Thomas's Hospital.

ROBINSON, J., M.D., has been appointed Certifying Surgeon for the Turton District, near Bolton. Also Medical Officer for the Turton District of the Bolton Union. Also Medical Officer of Health for the Urban Sanitary District of Turton. In respect of all the offices mentioned, vice J. Robinson, M.R.C.S.E., deceased.

WALKER, H., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer to the Third District of the Fulham Union, vice B. E. Sparell, resigned.

WALTERS, F. R., M.R.C.S.E., L.S.A.L., has been appointed Assistant House-Physician to St. Thomas's Hospital.

WEIGHT, R. H., M.D., M.B., C.M., has been appointed Senior House-Surgeon to the Preston and County of Lancaster Royal Infirmary, vice Dr. Langdon, resigned.

Births, Marriages, and Deaths.

BIRTHS.

BERNAYS.—On the 5th inst., at Old Charlton, S.E., the wife of Herbert L. Bernays, M.R.C.S.E. &c., of a son.

FINLAY.—On the 2nd inst., at Montagu-street, Portman-square, the wife of David W. Finlay, M.D., of a daughter.

LEE.—On the 13th inst., at Maddox-street, the wife of Robert J. Lee, M.D., Savile-row, of a daughter.

RAWLINS.—On the 6th inst., at Gordon House, Highgate-road, the wife of William Peter Rawlins, M.D., of a son.

TURNER.—On the 8th inst., at Northumberland House, Green-lanes, N., the wife of T. B. Turner, M.R.C.S.E., of a daughter.

TYLECOTE.—On the 5th inst., at Sandon, Staffordshire, the wife of J. H. Tylecote, M.D., of a son, still-born.

MARRIAGES.

CHITTENDEN—FAWKNER.—On the 15th inst., at St. George's, Hanover-square, W., Charles Chittenden, M.D., late of Her Majesty's Royal Navy, youngest son of John Frank Chittenden, M.D., and grandson of the late John Frank Chittenden, M.D., to Evelyne, eldest daughter of Thomas Fawkner, Esq., of Cornworthy Lee, late of Manchester.

BATT—WAKE.—On the 14th inst., at the Parish Church, Ecclesfield, by the Rev. E. H. Bucknall Estcourt, M.A., Rector of Eckington, assisted by the Rev. Alfred Gatty, D.D., Sub-Dean of York and Vicar of Ecclesfield, and the Rev. Nathan Jackson, M.A., Vicar of Easingwold (brother-in-law of the bridegroom), Charles Dorrington Batt, M.B. Lond., fourth son of the late Edward Augustine Batt, Surgeon, of Witney, Oxon., to Isabel, eldest daughter of Bernard Wake, Esq., of Abbeyfield, Sheffield.

DENNISTON—GUTHRIE.—On the 9th inst., at Withington Presbyterian Church, Manchester, by the Rev. Charles Moinet, M.A., James Denniston, M.D., of Dunoon, Argyllshire, N.B., to Agnes, daughter of Alexander Guthrie, Esq., of Broadoak, Withington, Manchester.

GREENWOOD—STEVENS.—On the 14th inst., at St. John's Church, Chatham, by the Rev. G. W. A. Lawrance, Arthur Greenwood, L.R.C.P.L., M.R.C.S.E., of 178, Cold Harbour-lane, S.E., to Ann Ellen (Annie) Stevens, second daughter of George Stevens, Esq., of 8, Ordnance-terrace, Chatham. No cards.

JOHNSTON—MOORE.—On the 21st ult., at the Abbey Church, Tewkesbury, by the Vicar, the Rev. Hemming Robeson, assisted by the Rev. Thurston Rivington, E. Cocks Johnston, M.R.C.S.E., of Bristol-street, Birmingham, to Edith Mary Moore, eldest daughter of B. T. Moore, J.P., of Tewkesbury.

REID—MUNNS.—On the 2nd inst., at St. Martin's Church, Canterbury, by the Very Rev. the Dean of Canterbury, assisted by the Rev. William Newman and the Rev. T. H. Maitland, Thomas Whitehead Reid, M.R.C.P.Ed., M.R.C.S.E., L.R.C.P.L., to Emily Eliza, third daughter of Colonel Munns, of St. Martin's Priory, Canterbury.

DEATHS.

AMPHLETT.—On the 9th inst., at Weymouth-street, Portland-place, Edward Amphlett, F.R.C.S., younger son of the late S. Holmden Amphlett, in his 32nd year.

BAKER.—On the 9th inst., at his residence, 6, Gambier-terrace, Hope-street, Liverpool, John Copleston Baker, M.D., aged 43.

CAMPBELL.—On the 9th inst., William Campbell, M.D., F.R.C.S.E., of 18, Westbourne-place, Eaton-square, London (drowned at Redcar while saving a boy).

FORBES.—On the 30th ult., at North Silver-street, Aberdeen, Alexander Forbes, M.D., aged 38.

HEWETT.—On the 29th ult., at his residence, The Lodge, Palmer's-green, Southgate, John Dickason Hewett, M.D., only son of the late George Goodman John Hewett, Surgeon, Royal Navy, of Hilton, Hunts, aged 64.

IMRAY.—On the 22nd ult., at Dominica, West Indies, Dr. John Imray, in his 70th year.

MOORE.—On the 4th inst., at 2, Osborne-terrace, South Circular-road, Dublin, Malcolm Henry Moore, M.B., aged 23.

O'CONNOR.—On the 3rd inst., suddenly, at 30, Upper Montagu-street, Montagu-square, William O'Connor, M.D., Senior Physician, Royal Free Hospital, aged 63. R.I.P.

SEYMOUR.—On the 8th inst., Dr. William F. Seymour, Medical Officer of Baltinglass Union Workhouse, aged 39.

SIMPSON.—On the 13th ult., at Sibi, South Afghanistan, John Simpson, Surgeon, Bombay Army, aged 38.

SUCHE.—On the 5th inst., at Weston-super-Mare, George Suche, M.D., F.L.S., F.R.G.S., &c., aged 82.

WATSON.—On the 3rd inst., at Oakfield, Reigate, Mary Watson, sister of Sir Thomas Watson, Bart., M.D., in her 86th year.

WILLIAMSON.—On the 3rd ult., at Grahamstown, Cape of Good Hope, John Edwin Williamson, M.D., formerly of Nantwich, Cheshire, aged 45.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

BOOKS ETC. RECEIVED.

CHURCHILL, J. & A., London.
- An Atlas of Human Anatomy, with Explanatory Text. By Rickman J. Godlee, M.S., F.R.C.S.
- Notes on Diseases of Women. By J. J. Reynolds, M.R.C.S. pp. 86.
- The Ocean as a Health Resort. By W. S. Wilson, L.R.C.P. Lond., &c. pp. 260. With a Chart.
- Removal of the Entire Tongue by the Whitehead Method. By Edw. Land, F.R.C.S. pp. 36.
- Atrophy of the Stomach. By S. Fenwick, M.D. pp. 187.
- Osteotomy. By William Macewen, M.D. pp. 181. With Illustrations.

DAVIS, G. S., Detroit.
- Conspectus of Organic Materia Medica and Pharmacal Botany. By E. L. Sayre, Ph.G. pp. 211.

FIELD & TUER.
- Luxurious Bathing: a Sketch. By Andrew W. Tuer. Fourth Edition. Eight Etchings. 5s.

GEORGE & Co., Lansing, Michigan.
- Seventh Annual Report of the Secretary of the State Board of Health of the State of Michigan. pp. 548.
- Eighth Annual Report relating to the Births, Marriages, and Deaths in Michigan. pp. 362.

HARRISON, W. H.
- Transcendental Physics: an Account of Experimental Investigations from the Scientific Treatises of Prof. J. C. F. Zöllner. Translated from the German, with Preface and Appendices, by C. C. Massey, Barrister-at-law. pp. 266. With Illustrations.
- Psychic Facts. Edited by W. H. Harrison. pp. 152. Illustrated.

LIPPINCOTT & Co., Philadelphia.
- Atlas of Skin Diseases. By L. A. Duhring, M.D. Part VII. Four Plates.

LONGMANS, GREEN, & Co., London.
- Elements of Astronomy. By R. S. Ball, LL.D., F.R.S. pp. 450. Illustrated.
- Handbook of Diseases of the Skin, with especial Reference to Diagnosis and Treatment. By R. Liveing, M.D. Second Edition, enlarged. pp. 349.
- Anatomical Outlines. By Arthur Hensman. With Original Drawings by A. E. Fisher. Parts III. & IV.

SMITH & HANNAMAN, Indianapolis.
- First Annual Report of the Department of Statistics and Geology of the State of Indiana. pp. 514.

SMITH, ELDER, & Co., London.
- A Treatise on the Science and Practice of Midwifery. By W. S. Playfair, M.D., F.R.C.P. Two vols. Third Edition. pp. 403, 414. With Illustrations.

THACKER, SPINK, & Co., Calcutta.
- Malaria: its Causes and Effects. By E. G. Russell, M.B., B.Sc. Lond. pp. 370.

VAN VOORST, J., London.
- Spirit Gravities, with Tables. By Thos. Stevenson, M.D. Lond. pp. 73.

WILLIAMS & NORGATE.
- Lectures on Digestion. By Dr. C. A. Ewald. Translated by R. Saundby, M.D. pp. 149.

The Royal London Ophthalmic Hospital Reports. Vol. X., Part I. (Churchills.)—Puberty and Adolescence Medico-Psychologically Considered. By T. S. Clouston. (Oliver & Boyd.)—Die ärztliche Gewerbefreiheit im Deutschen Reich. Von Dr. Albert Guttstadt.—Sur l'Emploi de la Térébinthine du Pistacia lentiscus dans le Cancer de l'Utérus. Par le Dr. Oscar Jennings.—Les Systèmes d'Evacuation des Eaux et Immondices d'une Ville. Par le Dr. Van Overbeek de Meijer.—Tuberculosis from a Sanitary and Pathological Point of View. By G. Fleming, F.R.C.V.S. (Baillière, Tindall, & Cox.)—Facts about Fevers. By Dr. D. Page. (Maclachlan and Stewart.)—Peptonized Milk as Food for Infants and Invalids. By Dr. R. J. Nunn. (Wood, New York.)—A Case of Fibroid Disease of the Heart. By Dr. R. P. Howard, Montreal.—On Occipital Headache as a Symptom of Uræmia. By Dr. E. C. Seguin.—Contributions to the Structure and History of the Multiple Neuroma. By Dr. Prudden, New York.—Contemporary Review, September.—Fraser's Magazine, September.—The Veterinarian, September.—The Victorian Magazine.—Journal of the Scottish Meteorological Society.—Report of the Medical Commission of the Mansion House Committee. By Drs. Sigerson and Kenny.—Anæsthesia by Ethyl Bromide. By Dr. H. A. Wilson.—Notes on Books Published by Messrs. Longmans.—Ophthalmic Operations. By Dr. A. S. Campbell.—Deutsches Familienblatt.—Rapport Annuel de l'Hospice d. Maria Amelia à Funchal.—Practische Beiträge zur Kinderheilkunde. Von Dr. A. Baginsky.—Monthly Review of Dental Surgery, September.—Facts about Fevers. By D. Page, M.D. (Maclachlan & Stewart.)—Rôle Chimique des Ferments Figurés. Par le Dr. Chapuis. (Baillière et Fils.)

METEOROLOGICAL READINGS.

(Taken daily at 9.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, September 16th, 1880.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 9.30 A.M.
Sep. 10	29·75	E.	63	61	111	80	55	..	Overcast
,, 11	29·69	S.W.	64	62	86	71	60	..	Cloudy
,, 12	29·57	S.W.	63	59	97	69	51	1·50	Cloudy
,, 13	29·62	W.	57	56	98	67	54	0·40	Overcast
,, 14	29·66	S.	57	56	88	63	50	0·14	Overcast
,, 15	29·26	N.W.	56	55	77	59	53	0·85	Overcast
,, 16	29·47	N.E.	58	56	76	63	51	0·50	Cloudy

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

AN UNCOURTEOUS LOCUM TENENS.

A CORRESPONDENT sends us a very bad account of his experience of a locum tenens, who, by his discourtesy, swearing, &c., drove patients away, was dissatisfied with four meat meals a day, &c. We can only by giving publicity to such an experience put practitioners on their guard. There cannot be many such gentlemen about. Principals, in engaging a locum tenens, should inquire not only as to their qualifications, but their manners.

Mr. James Worthington.—Galton on the Construction of Hospitals (Macmillan and Co.); Hospital Plans: Five Essays relating to the Construction, Organisation, and Management of Hospitals, contributed for the Use of the Johns Hopkins Hospital of Baltimore (Sampson Low, Marston, and Co.)

L. E. P. can only recover as a *surgeon*, and for *surgical treatment*.

THE STATISTICS OF ANTI-VACCINATIONISTS.

To the Editor of THE LANCET.

SIR,—Having occasion to look through some of the back numbers of THE LANCET, my attention was drawn to the figures quoted in one of your leaders for July 17th, 1880, from a letter written to a northern paper by Mr. J. T. Hibbert, M.P., the Parliamentary Secretary of the Local Government Board. I thought these figures looked very extraordinary, and, stimulated by your hint as to the accuracy of the text, I took the trouble of getting at the statistics as given by the Registrar-General (Abstracts for 1874-75). I found the statistics quoted by Mr. Hibbert totally wrong, and it surpasses my comprehension how the figures referred to were obtained. The following were the figures quoted:—"Increase of mortality amongst infants in 1875, 26,000 (all causes); increase from diarrhœa amongst infants from 5143 in 1874 to 15,477 in 1875; increase from bronchitis from 2506 in 1874 to 14,506 in 1875; increase from syphilis from 255 in 1874 to 1554 in 1875; decrease from small-pox from 1074 in 1874 to 142 in 1875."

The real statistics are as follows:—Increase of mortality amongst infants in 1875, 5756; increase from diarrhœa among infants from 13,988 in 1874 to 15,522 in 1875; increase from bronchitis from 12,580 in 1874 to 14,500 in 1875; increase from syphilis from 1484 in 1874 to 1554 in 1875; decrease from small-pox from 206 in 1874 to 90 in 1875.

It seems to me that had Mr. Hibbert taken the trouble to test the accuracy of the statistics presented to him by anti-vaccinators, he would not have given his support to the illogical and hazardous Amendment of the Vaccination Act, which was at one time under Government patronage. If the statistics of the opponents of vaccination are cooked in this fashion, Mr. Hopwood and his supporters may cease from troubling the Government for returns from the Registrar-General, since a useful and convincing table of such facts might be evolved from the inventive brain of one of the vaccination "martyrs," upon whom "multiple" fines have wrought their maddening effects.

I am, Sir, yours &c.,

Putney, Sept. 11th, 1880. A. WALKER, M.D.

P.S.—I deny that any increase has taken place in the deaths of infants from syphilis since 1870, save what may fairly be ascribed to increase of population.

THE CHINESE AS PATIENTS.

MR. ANDERSON, L.R.C.P., stationed in Formosa as agent of the English Presbyterian Church in connexion with the Edinburgh Medical Missionary Society, writes:—

"The Chinese make, on the whole, very good patients. Occasionally some of them try our patience not a little. One gets a four days' supply of medicine away with him, the recipe bearing on it, 'a spoonful three times daily after each meal.' He comes back next morning for more, thinking to flatter you by stating that he drank the former quantity at one dose! Another has his arm carefully put up in splints, and on his next visit he brings his dressings in a separate parcel. They are great believers in internal administration, and, although he have only a cut finger, it is difficult for a Chinaman to see why he should not get some medicine to 'eat.' They have peculiar palates, many of them, and can drink castor oil *ad nauseam*—a stage which is not so easily reached in their case as it is in ours. Here, as elsewhere, the medical has all along been found to be a valuable auxiliary to the general mission work."

Verbena will get the information he wants by applying to the Charity Organisation Society; or the Secretary of one of the good provident dispensaries for copy of Rules, Report, &c., say Northampton.

INSALUBRITY OF WEST-END DISTRICTS.

To the Editor of THE LANCET.

SIR,—I live in a highly respectable West-end suburb. Immediately adjoining the rear of the house in which I reside is a large open space, which, however, is entirely surrounded by houses. A portion of this space (close to my residence, and in an angle between the street in which it is situated and another street) is occupied by a number of small vegetable gardens, access to which is gained by an as yet unformed road. All along this road for a considerable distance (in the angle between two streets referred to already) are heaps of stable manure and other refuse, brought from I cannot tell where, to be used in fertilising the gardens alluded to. These heaps are there all the year round, being constantly replenished. All through the recent summer they have been there, soaked with rain one day, and sweltering in the sun the next. There is also immediately adjoining the unformed road mentioned a large green pool of stagnant water, which receives all the surface drainage of the extensive patch of vegetable gardens, and is, of course, highly charged with decomposing vegetable matter. During the late very hot weather, when we had some very heavy dews at night, the stench of decomposing vegetable matter—the well-known "cabbage-water" smell—was so strong that I have been *more than once awoke from sleep by it*, having, as is my usual custom, had my bedroom window open, and this window not immediately overlooking the cabbage-garden, but facing the street. I wrote twice to the sanitary department of the parish in which I live, and after some delay received a note from the health officer, stating that he "had inspected the ground and its surroundings," but "did not see anything to call for the interference of this department, there being nothing which, in my opinion, can be regarded as a nuisance injurious to health."

Will you kindly say in your next issue—1st, if you think the state of things I have described is injurious to health or not; and 2nd, if there be a nuisance, what further steps should I take in the matter.

Your obedient servant,

Sept. 13th, 1880. AN OLD SUBSCRIBER.

*** We do not understand whether under the title "health officer" our correspondent refers to the inspector of nuisances or medical officer of health. We apprehend the former is intended; for it seems to us incredible that the medical officer of health should not have seen the complainant and heard his own statement, and it indicate curious notions of duties that even the inspector of nuisances should not have seen the individual who experienced the offensiveness complained of. The question is one which the sanitary authority can best deal with, and we should advise our correspondent to seek an interview with the medical officer of health. If this course fails, however, our correspondent should submit his complaint to the justices under sec. 105 of the Public Health Act, 1875. Even market gardeners are not to be permitted to treat individuals living in houses overlooking their gardens as if they were vegetables requiring to be manured from time to time.—ED. L.

Canadian.—It is not our custom to insert letters such as the one forwarded to us. There can be no serious difficulty in obtaining from a consulting physician the information our correspondent requires.

Mr. Spawforth is referred to a general notice in another column.

SUPRAPUBIC PUNCTURE OF THE BLADDER.

To the Editor of THE LANCET.

SIR,—Mr. Treves' letter on the above subject confirms my statement that aspiration is more troublesome and for some reason more dangerous than puncture. This also, according to my experience, applies to the use of very fine trocars and cannulas (Southey's, I think, they are called) for abdominal puncture. How suprapubic puncture can have been allowed to drop out of use I cannot understand. In some cases it is preferable; in others the only justifiable means of relief. What my advocacy failed to do, Mr. Teevan's will probably accomplish.

Kennington-park-road, Sept. 8th, 1880. W. J. MARSH, M.R.C.S.

M.D. (Devonport) and *A Candidate* (Manchester.)—We understand that the result of the half-yearly examination in Arts &c. for the diplomas of Fellow and Member of the College of Surgeons will be made known in a few days. If successful, the son of "M.D." could commence his hospital studies in October next. Registration is abolished at the College.

Unlucky Watch.—The licentiate in question is, in the eyes of the law, only a surgeon. Consequently he cannot also call himself a physician.

Mrs. Browne.—There are no published statistics on the subject.

THE LATE MISS NEILSON.

To the Editor of THE LANCET.

SIR,—Since January, 1876, the late Miss Neilson was generally under my care when in London, and I saw her immediately before her visit to Paris. In April, 1876, Sir William Gull also saw her in concert with me, and, as his opinion entirely concurred with that which I formed of her case, it may be of interest for me to offer some observations now that Dr. W. E. Johnston's letter to *The Times* has made the medical features of the deceased lady's case matter of public comment, and has placed in some doubt the treatment adopted by Drs. Mounier and Gantillon, as if that treatment had been in some way responsible for this gifted lady's untimely death. Dr. Johnston's letter, as quoted in THE LANCET of August 28th, contains the following statement:—"The post-mortem examination disclosed the extraordinary fact, one of the rarest in the history of medicine, that in her writhings she had ruptured a varicose vein in the left Fallopian tube, and had died from internal hæmorrhage"; and it will be seen that Dr. Johnston assumes that "her fatal attack was evidently one of her usual attacks of gastralgia, which might have been relieved then, as it often had been before, by a free use of morphia."

1. Rupture of a varicose vein in this locality (abdominal hæmatocele) I have seen in my own experience at least ten times, and I have no doubt that the experience of other physicians will bear me out when I say that Dr. Johnston is mistaken in supposing such a case to be "one of the rarest in the history of medicine."

2. What the post-mortem examination disclosed was simply the fact that she had died from this particular form of internal hæmorrhage. It in no way showed that the poor lady's "writhings" had been anything but the usual and necessary consequence of a large and sudden discharge of blood into the peritoneal cavity. I venture to submit also that the history of her death shows that on this vein giving way she was seized with violent pain and collapse, which for some hours arrested further hæmorrhage; that, on reaction commencing, a fresh gush of blood took place from the lacerated vein, and thereupon that a second fatal attack of suffering and collapse occurred; and I venture to add that there is no ground for the suggestion of any attack of gastralgia in the case, nor for the suggestion that the vein burst in consequence of any "writhings," nor for the *ex post facto* suggestion that the hæmorrhage would have been prevented by "a free use of morphia."

3. When Miss Neilson came under my care in January, 1876, she was haunted and depressed by various suggestions which had been made as to disease of heart and of other organs. On one of the first attacks of dyspeptic colic—not "gastralgia,"—for which I was called, I was urgently requested to bring with me the hypodermic syringe and some solution of morphia, which had previously given her relief. I took with me the articles, but urged her to allow me to treat her in my own way, and not to go on with the morphia. To this she consented, and the results were such that she never again asked me for morphia, and I believe that I never once gave her morphia, although I attended her through many such attacks.

Miss Neilson was a most perfectly organised woman, and neither Sir W. Gull nor myself could discover a trace of organic disease about her. She was as graceful and charming in her own house as she was upon the stage, and she would have enjoyed singularly perfect health but for the conditions under which she lived—conditions which no highly organised and sensitive frame could endure. Day after day there were long and sometimes stormy rehearsals; then the dinner, often with a troop of friends; then a long, heavy performance, and then a supper either at her own house or at the house of some friend and with kindred spirits, with whom time passed quickly. The natural result was brain exhaustion; then dyspepsia; then crudity and colic; then strenuous attempts to fulfil her engagements, more than once only by the help of brandy; then collapse, and certificates of inability to perform. More than once she went to her performance only under my promise to be in a box and visit her between the acts. At this point I could again for a time enforce *rest*, simple food, the exclusion of visitors, and, as she returned to the stage, the expenditure of no strength except in a carriage-drive for air, and in the work which she had to get through in her rehearsals and her performances. I taught her maid how to make beef-tea and other simple, suitable foods in her rooms behind the stage, and upon these she worked well and recovered her health; whereas upon the free use of morphia to relieve pain, and upon brandy to keep her going, she had demoralised her digestive organs, and came to a full stop. The Sunday before she last left London she was apparently in charming health, and as gleeful as a bird. What struck me particularly in observing her character and in correspondence which I had with her about her health, when I was not within reach, was her devotion to the stage; her shrewd, womanly knowledge of the world in matters relating to her own profession; her girlish abandon and gleefulness when with friends.

Yours truly,

JAMES EDMUNDS, M.D., M.R.C.P. Lond.

Grafton-street, Piccadilly, Sept. 2nd, 1880.

A. G. H.—The licence of the College of Physicians is recognised as a qualification in Medicine and Surgery by the Local Government Board; but an independent Surgical qualification is required for the Army, and we believe also for the Navy.

Mr. Benj. Baker, M.R.C.S.—The profession is so obviously on the side of temperance that it can afford to treat with silence the effusions alluded to by our correspondent.

J. J. P.—We cannot undertake the comparison desired.

GUY'S HOSPITAL.

To the Editor of THE LANCET.

SIR,—In the *South London Press* of Aug. 21st is a notice of a meeting of the guardians of St. Saviour's, Southwark, in which Dr. Iliff is reported to have said that an investigation was going on the issue of which would no doubt be a great improvement at Guy's Hospital, and that therefore my letter urging a petition to the House of Commons should be simply acknowledged. What Dr. Iliff stated was so exactly opposed to all the information I had received, that I at once, on receipt of a letter from a member of Guy's staff as to this matter and Dr. Iliff's statement, wrote to him. If you think well, will you kindly print the letter.

"Sept. 2nd, 1880.

"DEAR DR. ILIFF,—I was sorry to see your extinguisher clapped over my desire to help, however humbly, my professional brethren at Guy's, who are being sorely snubbed by lay governors, and to help the cause of the sick poor. As chairman of the committee in a like case of the past, in 1862, when I was publicly appointed to that place by the representatives of the South London parishes, I supposed I had a sort of *locus standi* now, and that I should not be considered to be impertinently intruding in urging the parishes to petition the House of Commons. We cannot but be right in our desire that the profession, educated as it now is, should by its highest members have a strong voice in the management of institutions in which they are the chief executive—more so as there can be no safety for the sick in a divided authority. I thought that, at least, every man in our profession would help to right this mischance; hence my sorrow at your position, apparently in opposition. I believe in what you asserted—a present investigation and a more than probable remedy; that you had been altogether misinformed—that is, if the *South London Press*, usually very accurate, gives your meaning. I have written to a member of the staff, and enclosed the slip report of your words. I have answer dated August 31st, 1880, as follows: 'I know nothing of any present full investigation of the mismanagement at Guy's. I think Dr. Iliff must have been referring to the labours of the committee which sat and reported, and whose report gave rise to all the discussions in *The Times*. Seeing that that report ignored the representatives of the staff upon the main questions, it is hardly to be hoped that it will lead to any great improvement; and, as a matter of fact, I think we are more hopelessly at loggerheads with the governing body than ever. Practically the governing body are riding the high horse, and think they can nurse the hospital without the medical officers. I hope, for the sake of the sick poor, that the public will not endorse this view.'"

I am, Sir, your obedient servant,

Polperro R.S.O., Cornwall, Sept. 2nd, 1880. W. RENDLE.

R. G. M.—Ellis's or Godlee's plates; Holmes's or Bryant's Surgery; Kirkes's or Foster's Physiology. See article on Books in our last number.

Mr. Shirley Deakin.—The papers are under consideration. The letter is, we fear, too long for insertion in its present form.

PAINLESS TOOTH EXTRACTION.

To the Editor of THE LANCET.

SIR,—What is the best application to the gums for the relief of pain during the extraction of teeth? Will any reader reply?

I remain, Sir, yours &c.,

Sept. 4th, 1880. J. S.

Dr. Caldwell, (Wakefield, Ontario.)—The worm was evidently a specimen of the Strongylus gigas, the passing of which by the urethra is not unprecedented.

PATIENTS' GRATITUDE.

To the Editor of THE LANCET.

SIR,—"A Village Doctor" is quite right. The practice of giving every discharged patient on leaving the hospital a printed paper, reciting that he or she has been "cured" or oftener "benefited," and desires to give thanks to Almighty God for the same, is wrong in principle, and eminently unfair to everybody concerned, and not the least to the parson. My experience is that it is frequently sent in without the personal appearance of the patient at the service at all, in which he is supposed to "return hearty thanks." It really means an advertisement of the hospital named, with a lively sense of favours to come in the shape of church collections and individual subscriptions. My practice is to take no notice of such papers, unless from my personal knowledge of the patient I believe him to be "truly thankful," and even in such cases it is unnecessary to name the hospital, as it would sound, to say the least, odd to give out that John Brown, having ceased to require the services of Messrs. Jones and Robinson, Surgeons, of Puddletown-in-the-Mud, desires &c. Yours &c.,

September, 1880. PARSON.

Mr. H. Marsden.—1. Yes, if the circulation were so free as to cause considerable hæmorrhage, but this seems to be doubtful.—2. Supposing the child to be very weak, it might do so.—3. In natural breathing, the air-cells are expanded. Artificial respiration does not, as a rule, so quickly distend the cells.

L.R.C.P.—Abstractly the principal is entitled to both fees; but, as a matter of generosity and taste, we think the fees ought to be divided.

Mr. T. Robinson.—Soon.

QUARANTINE AT ST. HELENA.

To the Editor of THE LANCET.

SIR,—I shall feel much obliged if you can spare space in your valuable journal for the following notes of my experience of quarantine at St. Helena.

I lately accepted a medical appointment at this island, and, according to terms, left England on May 28th last in the steamship *Grantully Castle*. During the voyage the surgeon of the vessel reported three or four cases of measles. On arriving at our destination the yellow flag was hoisted, and all personal communication with the shore more or less forbidden. Travelling with a wife and young family, I was anxious to know what accommodation would be provided for us. After two or three hours' deliberation of the authorities on shore, we were conveyed on board an old condemned hulk, as there was no proper quarantine station. A ship's boat was lowered, and after receiving great kindness and sympathy from our fellow-passengers, we were taken alongside the hulk. On boarding, it was found to be just the shell of a rotten vessel, too filthy for any human being, and with no protection from wind and rain. A gentleman with us expressed it as a piece of unwarrantable cruelty to attempt to put us there. I refused to go on board; so another hulk was offered us, a shade better, but again not fit for anyone. The captain was blowing his whistle, and becoming furious at the delay of his steamer, so our baggage was passed up, and we were left alone. We huddled together out of the rain as much as possible in what had been a cabin, but was now a tumbling-down collection of beams, spars, old cabin-doors, &c. With these I protected as well as I could the holes in deck to prevent the children from falling through to the bottom of the hulk. The filth was more than an inch deep, consisting of rotting refuse. On this we had to lie down and sleep, and (as far as the authorities on shore were concerned) without food, water, lights, or any accommodation. The next day we were taken with all baggage to a building with one room, situate in a lonely valley to windward of the town. Here we had to live for fourteen days more. As there was no glass in the windows of the room, and a hole in the roof, we all caught bronchitis. Application was made to the Governor to have the windows reglazed, but without effect.

Now, Sir, my object in sending you these particulars is not to enlarge upon my own troubles in coming here, but to make known to any intending visitors who might think of coming here for their health or pleasure what they may expect if they have the misfortune to be put in quarantine. I maintain that when quarantine is to be enforced for even the exanthemata, proper and decent accommodation should be provided.

Yours obediently,
RICHARD CRESSWELL, M.R.C.S., &c.

Jamestown, St. Helena, Aug. 16th, 1880.

Herr Jander.—We must refer our correspondent to the Students' Number (September 11th) of this journal for full information concerning the University of London. The whole curriculum must be passed through.

Dr. W. A. Harris is thanked.

Mr. Irvine.—Yes, on receipt of Post-office order for 2s. 6d.

QUASSIA POISONING.

To the Editor of THE LANCET.

SIR,—In reply to Mr. Maples' remarks concerning a case of quassia poisoning, which was reported in your issue of the 14th ult., I must call his attention to the treatment adopted—viz., brandy by the mouth, and brandy with ether and ammonia by the rectum. I can hardly imagine that in alcoholic poisoning (although the symptoms were almost analogous) treatment by brandy would have done any good, but rather have increased the mischief; whereas in this case its administration per rectum seemed to act most quickly and beneficially.

Yours faithfully,
JOHN D. T. RECKITT,
House-Surgeon.

Newark Hospital, Sept. 7th, 1880.

Dr. J. Broom.—We regret we cannot promise the insertion of the communication.

Medicus.—The Manchester Medico-Ethical Society have issued a tariff of charges.

THE DOSE AND VALUE OF CALCIUM SULPHIDE IN ACNE.

To the Editor of THE LANCET.

SIR,—Regarding the letter which appeared in your issue of Sept. 4th by Mr. Squire, I may mention that for upwards of two years I have tried the sulphide of calcium in several cases of acne which came under my treatment, and without any beneficial effect. I generally began with one-eighth of a grain three times a day, and gradually increased the dose to one grain. I have also tried sodium hyposulphite and magnesium sulphite with the same result.

Your obedient servant,
ROBERT LEES, M.B., C.M.

Glasgow, Sept. 9th, 1880.

A Country Physician.—The clinical thermometer seems to be largely used in the United States. The *Philadelphia Medical Times* states there are about eight thousand of such instruments annually sold in America.

Mr. A. Gillett.—We do not prescribe. Consult a registered medical practitioner.

URTICARIA.

To the Editor of THE LANCET.

SIR,—In answer to your correspondent, "H. H. N.," I would suggest to him to try the treatment adopted by me in a case nearly similar to his.

My patient, a young woman, aged twenty-eight, complained of spots occurring on her wrists and forearms, face, and feet. Her face became at times quite puffy, and, in addition, the irritation at the soles of her feet was so distressing to her that she had to wear soft slippers and constantly change her stockings, and rub her feet until the itching passed away. The line of treatment adopted by me was—internally, half-drachm doses of solution of acetate of ammonia, with five-minim doses of solution of arsenic, and a few drops of chloric ether, in water, every four hours; the application of compound tincture of benzoin to the parts affected locally, and bran baths twice daily. This having failed to give relief, after consultation with Dr. Murrell, of Westminster Hospital, the patient was given a wineglass of nettle-tea several times daily; a solution of carbolic acid (1 in 1000) locally, and a bath twice daily, consisting of common washing-soda and water. After a few days of such treatment, the patient improved in every respect, the irritation in soles of feet first disappearing, followed by the loss of swelling in the face, and the spots on the body, which resembled no other skin disease but urticaria.

I am, Sir, yours &c.,
A. B. KELLY, L.R.C.P., &c.

Mount-street, W., Sept. 1880.

To the Editor of THE LANCET.

SIR,—In reply to your correspondent, "H. H. N.," who asks for aid in the treatment of the above common but often most obstinate affection, I would advise scrupulous attention to the food used, to find out if possible the origin of the evil, analysis of the urine, the exhibition of rhubarb with bicarbonate of soda, and the free use of spirits of nitre with feather or brush as a lotion on the parts affected, permitting free evaporation. This latter application I have found so useful in many distressing cases of nettle-rash that I would feel indebted to any of my brethren who, after trying it, would communicate the result to me. The articles of diet most likely to produce urticaria are flatfish, coffee, stone fruits, shellfish, bread containing alum, bitter beer, watercress, and edible rhubarb.

Yours faithfully,
S. CLARK, M.D.

Folkestone, Sept. 6th, 1880.

Mr. H. Archibald had better put the question to his ordinary medical attendant.

Zeta.—The Secretary is Dr. W. H. Rollins, 12, Beacon-street, Boston, Mass., U.S.A.

THE INFLUENCE OF PEROXIDE OF HYDROGEN ON FERMENTATION.

To the Editor of THE LANCET.

SIR,—I beg to direct your attention to the fact that, while in noticing the recent experiments of M. Regnard, you did not overlook the prior researches of Guttmann and Fraenkel, you have made no reference to my yet earlier investigation of the same subject. Some two years ago I addressed a short letter to you in connexion with this matter, and now I must again claim your indulgence to allow me to point out that M. Regnard's results are not in any sense more original than those of Guttmann and Fraenkel, and that my investigation, which was the first of the kind, led to the discovery of the antiseptic properties of peroxide of hydrogen. A record of my experiments will be found in the *Chemical News*, Sept. 29th, 1876, and in the *Moniteur Scientifique* for July, 1877, and also in my recently published "Nature's Hygiene" (Baillière and Co.). M. Regnard certainly ought not to be unaware of my prior researches, seeing they were published long ago in a French scientific journal so well known as the *Moniteur Scientifique*.

I am, Sir, yours faithfully,
C. T. KINGZETT.

West Kensington, Sept. 4th, 1880.

CORRIGENDA.—One of the works we mentioned last week as worthy of the notice of students in their pursuit of practical physiology was named "Power and Kidd." The little volume we intended to recommend was the "Manual for the Physiological Laboratory," by Dr. Vincent Harris and Mr. D'Arcy Power, published by Messrs. Baillière, Tindall, and Cox.—The number of men in the provident dispensary mentioned by Mr. Bradford in our issue of Sept. 4th, p. 400, should have been stated as 1197, not 1297.—The Scholarship in Human Anatomy at the London Hospital is awarded every year, and the examination for it takes place in March, not April, as stated in our last.

Bradford Observer, Society Times, Pharmaceutical Journal, Westminster and Chelsea News, Scottish Leather-Trader, North-Western Gazette, New York Medical Record, Boston Medical and Surgical Journal, Sanitary Journal, Western Morning News, Western Times, Wandsworth and Battersea District Times, City Press, Seaham Weekly News, Hand and Heart, Indian Medical Herald, Church of England Temperance Chronicle, Science, Egyptian Gazette, Englishman, Daily Free Press, Philadelphia Medical Times, El Observador Medico, Isle of Man Times, Morning Herald, &c. &c., have been received.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir J. Paget, Chipping Sodbury; Sir H. Thompson; Sir T. Acland; Dr. Peacock, London; Dr. Burdon-Sanderson; Dr. Dyce Duckworth, London; Mr. Barnard Holt, London; Mr. J. Gant; Mr. G. Fleming, London; Dr. Atkinson, Kingston; Dr. Wise, London; Dr. Redwood, Rymney; Mr. Dyer; Mr. Bradford, Smethwick; Dr. Gee, London; Dr. Bantock, London; Rev. J. Rodgers, London; Dr. Milne, Shipsham; Dr. Broom, Clifton; Mr. C. T. Kingzett; Messrs. Dalziel Brothers; Mr. Cresswell, Birmingham; Dr. Clark, Folkestone; Mr. Reckitt; Mr. D. D. Jones; Mr. Wood, Isle of Man; Mr. Hopkins; Dr. J. S. Stocker, London; Dr. Annington; Mr. Ewart, London; Mr. Palmer, London; Dr. Muter; Mr. Macdowall; Mr. Rendle; Messrs. King and Co.; Mr. J. Startin, London; Mr. Gillett; Dr. Tatham, Salford; Mr. Macdonald, Braco; Mr. Marsh; Mr. Shirley Deakin, Allahabad; Messrs. Oliver and Boyd; Dr. Finch; Mr. May, London; Mr. A. B. Kelly; Dr. Pitta, Funchal; Mr. Baker, Brentwood; Mr. Statham, London; Dr. Caldwell, Lakefield, Ontario; Mr. J. S. Ward; Mr. Hayden; Mr. Fancock, Norwich; Mr. Furlong, Lymington; Dr. Peters, Davos; Mr. R. Lees, Glasgow; Mr. Irvine; Mr. Hill, London; Dr. Spencer, Bath; Mr. Scott, London; Herr Jander; Dr. M'Nicholl; Mr. Dyer; Mr. Stedman, Newport, R.I.; Mr. J. Brown, Leeds; Dr. Walker, Putney; Mr. Philip, Alexandria; Mr. Bert; Dr. Harris; Mr. Moore, Jersey; Dr. Packman, Hertford; Mr. Reed; Dr. Sayer, Earls Barton; Mr. Bloxham; Mr. Bentley; Messrs. Dick, Radcliffe, and Co.; Mr. Hopgood, Chipping Norton; Mr. Crispp; Mr. Forbes; Mr. Oldfield, Ashill; Mr. Stewart; Mr. Cox, Williton; Mr. Young; Mr. Watson; Mr. Dunn; Mr. Horsfall, Leeds; Mr. M'Keown, Belfast; Messrs. Fannin and Co., Dublin; Dr. Atthill, Dublin; Mr. Jackson, Liverpool; Mr. Gulliver, London; Mr. Stilliard, Birmingham; Mr. Pitts, London; Mr. Bennett, Marsden; Mr. Walker; Rev. W. S. Mundon; Mr. Scott, Halifax; Messrs. Wright and Co., Birmingham; Mr. Crespi, Stroud; Mr. Eager, Melton; Mr. Holmes, Maidstone; Messrs. Bingham and Co.; Mr. Maclehose, Glasgow; L. E. P.; Verbena; M.B.; Cains; Phys.; Canadian; Unlucky Watch; L.R.C.P.; A. G. H.; R. G. M.; Parson; J. S.; J. J. P.; F.R.C.S. Eng.; J. W. S., Aberdeen; Medicus; Veritas; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from — Mr. Legge, Derby; Mr. Nicholls, Hartest; Mr. Jones, Stratford; Mr. Johnston, Corby; Mr. Skinner, Shrewsbury; Dr. Ryley, Stratford; Mr. Cuckson, Gainsborough; Mr. Newman, Bowness; Mr. Tylecote, Sandon; Dr. Moreton, Sheffield; Mr. Corbett, London; Dr. Barnett, Rochester; Mr. Macgregor, Huddersfield; Mr. Reid, Canterbury; Mr. Thomas, Brecknock; Mr. Schoth, London; Mr. Hyatt, Stow-on-the-Wold; Mr. Tarleton, Cheader; Mr. Sykes, Hackney; Mr. Moore, London; Mr. Bloxham, Littleborough; Mr. Robbins, Buxton; Mr. Ramsden, Ravensthorpe; Mr. Heywood, Manchester; Mr. Spencer, Glasgow; Mr. Hallas, Halifax; Mr. Callard, London; Dr. Prior, St. Albans; Mr. Ravenhill, Aylesbury; Dr. Waters, Liverpool; Mr. Armstrong, Newton Abbott; Mr. Taylor, Bocking; Mr. Shearman, Rotherham; Mr. Christy, Stafford; Dr. Wilson, Tunbridge; Mr. Whitley, Leeds; Mrs. Byrn, Weston-super-Mare; Mr. Cappe, Brookwood; Mr. Robson, Leeds; Dr. Meedham, Gloucester; Dr. Williams; Rev. M. Penny, Abbots Bury; Messrs. Dawson Brothers, Montreal; Mr. Trubshaw, Pendre; Mr. Hudson; Dr. Plumbe, Maidenhead; Dr. Baird, Plymouth; Mr. Langston, Grantham; Mr. G. Lawson, Guernsey; Mr. Richmond, Chester; Mr. Bazet, Newbury; Mrs. Merrill; Mr. Faux, Loughborough; Dr. Skrimshire, Holt; Mr. Salmond; Mr. Barker, Tunbridge; Mr. Bay, Berthley; Mr. Young, Cheddar; Mr. Jollye, Donington; Messrs. Morris and Cooper, Ross; Mr. Kellett, Wigan; Mr. Wray, Wolverhampton; Mr. Hirst, Morley; Mr. Cane, Halsley; Mr. Scott, Manchester; Mrs. Grubb, St. Leonards; Miss Cameron; Mr. Frampton, Weston-super-Mare; Dr. Morris, London; Mr. Watford, Dudley; Mr. Fosbrooke, Birmingham; Mr. Reynolds, Dasshal, India; Mr. Sampson; Messrs. Holderman and Co., Manchester; Mr. Kemm, Corsham; Messrs. Berdoe and Co., London; Messrs. Porteous and Co., Glasgow; Mr. Essex, Pontypridd; Mr. Forth, Shrewsbury; Senior; Semper Paratus, Ashton-under-Lyne; Medicus; Veritas; Medicus, Walthamstow; J. D. J., Newport; Alpha, Faversham; J. K., London; Alpha, Great Yarmouth; Medicus, Waverton; F. B. B., Godalming; Surgeon, London; H. P., London; Medicus, London; T. J. C., Risca; W. G., Greenheys; W. J. B.; E., London; F. F., Merfield; D. E.; Medicus, York; S. Y.; Socius, Clapham; P. H.; Omega, Birmingham; J. B., London; Miles, Southampton; H. S., Woking; Alpha, London; A. B., Wolverhampton; Alpha, Doncaster; L. F., Thaxted; Surgeon, Great Grimsby; A. Z.; K. K., Oxton; Physician, London; Constantius; M.R.C.S., Crowborough; J. E. R.; M.R.C.S., Methley; E. C. J., Piccadilly; Registrar; Alpha; T. W.; Alpha, Newcastle; P., F.R.C.S.; Practitioner, Sheffield; Sussex; M. N. B.; Surgeon, Brentford; A. B., Anglesey; Lex, Eastbourne; C. J. N., Winterton; S. D., Llanelly; Oxon, Sheffield; F.; M. N.; F.R.C.S., Liverpool; M.D. 167; C. H. M.; Medicus, Oldbury; Medicus, Blackley; A. K., Deptford; X.; Surgeon, City-road; Alpha, Doncaster; M. B.; H.C.; Elms, London; Omega, Manchester; Medicus, Mile-end; A. B., Sevenoaks; S. W., St. Albans; K. K., Oxton; &c. &c.

Medical Diary for the ensuing Week.

Monday, Sept. 20.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS. — Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

Tuesday, Sept. 21.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, Sept. 22.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at 1 P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN. — Operations, 2½ P.M.

Thursday, Sept. 23.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 2 P.M., and on Friday at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

Friday, Sept. 24.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Sept. 25.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

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Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

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